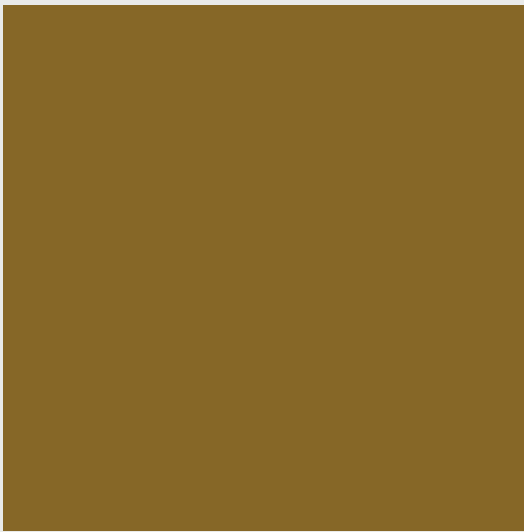
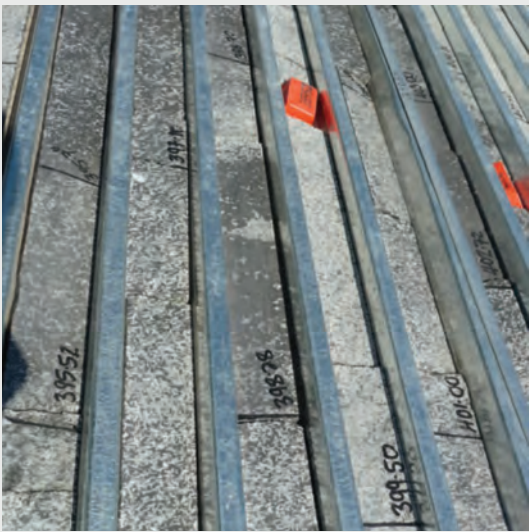
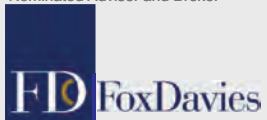




[www.bushveldminerals.com](http://www.bushveldminerals.com)



Nominated Adviser and Broker



1 Tudor Street, London EC4Y 0AH

# Admission to trading on AIM 2012

**THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION.** If you are in any doubt about the contents of this Document, or the action you should take, you should seek your own personal financial advice immediately from your stockbroker, bank manager, solicitor, accountant, fund manager or other independent financial adviser duly authorised under FSMA if you are in the United Kingdom or, if not, from another appropriately authorised independent adviser who specialises in advising on the acquisition of shares and other securities.

Application will be 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 to larger or more established companies. AIM securities are not admitted to the Official List of the United Kingdom Listing Authority. 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. 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 on admission in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. Neither the London Stock Exchange nor the FSA has examined or approved the contents of this Document. The Ordinary Shares are not admitted to trading on any recognised investment exchange and apart from the application for Admission, no such other applications have been or are intended to be made. The Directors expect that Admission will become effective and that dealings in the Ordinary Shares will commence on AIM on 26 March 2012.

This Document, which comprises an admission document drawn up in accordance with the AIM Rules, has been issued in connection with the proposed admission of the issued and to be issued Ordinary Shares to trading on AIM, a market operated by the London Stock Exchange. This document does not contain an offer or constitute any part of an offer to the public within the meaning of sections 85 and 102B of FSMA or otherwise. This Document is not an approved prospectus for the purposes of section 85 of FSMA and a copy of it has not been, and will not be, delivered to the Financial Services Authority in accordance with the Prospectus Rules or delivered to or approved by any other authority which could be a competent authority for the purposes of the Prospectus Directive.

The Company and the Directors, details of which or whom appear on page 5 of this Document, accept responsibility for the information contained in this Document. To the best of the knowledge and belief of the Company and the Directors, 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.

**The attention of persons receiving a copy of this Document is drawn to the Risk Factors set out in Part V of this Document. The AIM Rules are less demanding than those of the Official List. No liability whatsoever is accepted by Fox-Davies Capital Limited for the accuracy of any information or opinions contained in this Document, or for the omission of any material information for which the Company and the Directors are solely responsible. The whole of the text of this Document should be read.**

---

## **BUSHVELD MINERALS LIMITED**

*(Incorporated and registered in Guernsey with registered number 54506)*

### **Placing of 28,665,000 Ordinary Shares at a price of 20p per share**

**Admission to trading on AIM**

***Nominated Adviser and Broker***

**Fox-Davies Capital Limited**

---

#### **Share capital of Ordinary Shares of par value one pence**

<i>Authorised</i>		<i>Issued and fully paid</i>
unlimited	Immediately prior to Admission	255,304,110
unlimited	Immediately following the Placing and Admission	283,969,110

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Fox-Davies Capital Limited, which is authorised and regulated in the United Kingdom by the FSA and is a member of the London Stock Exchange, is the Company's Nominated Adviser and Broker in connection with the Admission for the purposes of the AIM Rules and is acting exclusively for the Company and no one else in connection with the matters described herein and will not be responsible to anyone other than the Company for providing the protections afforded to customers of Fox-Davies Capital Limited or for advising any other person in respect of the proposed Placing and Admission. The responsibilities of Fox-Davies Capital Limited, as Nominated Adviser and Broker under the AIM Rules, are owed solely to the London Stock Exchange and are not owed to the Company or any Director or to any other person in respect of their decision to acquire Ordinary Shares in reliance on any part of this Document. No person has been authorised to give any information or make any representations other than those contained in this Document and, if given or made, such information or representations must not be relied upon as having been so authorised. No representation or warranty, express or implied, is made by Fox-Davies Capital Limited as to any of the contents of this Document. Fox-Davies Capital Limited has not authorised the contents of any part of this Document for any purpose and no liability whatsoever is accepted by Fox-Davies Capital Limited for the accuracy of any information or opinions contained in this Document. Neither the delivery of this Document hereunder nor any subsequent subscription or sale made for Ordinary Shares shall, under any circumstances, create any implication that the information contained in this Document is correct as of any time subsequent to the date of this Document.

Copies of this Document will be available free of charge during normal business hours on any weekday (except Saturdays, Sundays and public holidays) from the offices of Fox-Davies Capital Limited from the date of this Document and for a period of at least one month from Admission. Additionally, an electronic version of this Document will be available at the Company's website, [www.bushveldminerals.com](http://www.bushveldminerals.com).

**An investment in the Company may not be suitable for all recipients of this Document. Any such investment is speculative and involves a high degree of risk. Prospective purchasers of Ordinary Shares should carefully consider whether an investment in the Company is suitable for them in light of their circumstances and the financial resources available to them. Attention is drawn, in particular, to the Risk Factors set out in Part V of this Document.**

#### **OVERSEAS SHAREHOLDERS**

This Document does not constitute an offer to sell, or a solicitation to buy Ordinary Shares in any jurisdiction in which such offer or solicitation is unlawful. In particular, this Document is not, subject to certain exceptions, for distribution in or into the United States of America, Canada, Australia, the Republic of South Africa, Japan or the Republic of Ireland. The Ordinary Shares have not been nor will be registered under the United States Securities Act of 1933, as amended, nor under the securities legislation of any state of the United States or any province or territory of Canada, Australia, the Republic of South Africa, Japan or the Republic of Ireland or in any country, territory or possession where to do so may contravene local securities laws or regulations. Accordingly, the Ordinary Shares may not, subject to certain exceptions, be offered or sold directly or indirectly in or into the United States of America, Canada, Australia, the Republic of South Africa, Japan or the Republic of Ireland or to any national, citizen or resident of the United States of America, Canada, Australia, the Republic of South Africa, Japan or the Republic of Ireland. The distribution of this Document in certain jurisdictions may be restricted by law. No action has been taken by the Company by Fox Davies Capital Limited that would permit a public offer of 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 laws of any such jurisdiction. This Document has not been, and will not be, registered under the laws and regulations of Guernsey nor has any regulatory authority in Guernsey passed comment upon or approved the accuracy or adequacy of this Document.

Holding Ordinary Shares may have implications for overseas shareholders under the laws of the relevant overseas jurisdictions. Overseas shareholders should inform themselves about and observe any applicable legal requirements. It is the responsibility of each overseas shareholder to satisfy himself as to the full observance of the laws of the relevant jurisdiction in connection therewith, including the obtaining of any governmental, exchange control or other consents which may be required, or the compliance with other necessary formalities which are required to be observed and the payment of any issue, transfer or other taxes due in such jurisdiction.

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Parts I to IV of this Document contains cross-references to information contained in the Competent Person’s Report set out at Part VI of this Document. The Company confirms that the information contained in Parts I to IV which has been extracted from the Competent Person’s Report has been accurately reproduced and that so far as the Company is aware and is able to ascertain from the Competent Person’s Report, no facts have been omitted which would render the extracts inaccurate or misleading. The Competent Person has reviewed the information contained in this Document which relates to information contained in the Competent Person’s Report and has confirmed in writing to the Company and Fox-Davies Capital Limited that the information presented is accurate, balanced and complete and not inconsistent with the Competent Person’s Report.

## PLACING STATISTICS

Placing Price	20 pence
Number of Placing Shares	28,665,000
Number of Ordinary Shares in issue before Admission	255,304,110
Number of Ordinary Shares in issue following the Placing and Admission	283,969,110
Number of Options in issue following the Placing and Admission	Nil
Number of Ordinary Shares on a fully diluted basis following the Placing and Admission	283,969,110
Percentage of the Enlarged Share Capital represented by the Placing Shares	10 per cent
Estimated cash proceeds of the Placing receivable by the Company (net of expenses)	£4.86 million
Approximate market capitalisation of the Company at Admission at the Placing Price	£56.7 million
AIM symbol	BMN
International Security Identification Number (“ISIN”)	GG00B4TM3943

## EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Publication of this Document	20 March 2012
Admission and dealings in the Enlarged Share Capital commence on AIM	8.00 a.m. on 26 March 2012
CREST accounts expected to be credited by	26 March 2012
Despatch of definitive certificates expected by	10 April 2012

Note: All references to times in this timetable are to London times and each of the times and dates may be subject to change.

### Forward looking statements

Certain statements in this Document are forward looking statements. These forward looking statements are not based on historical facts but rather on management’s expectations regarding the Company’s future growth, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, planned exploration and development activity and the results of such activity, business prospects and opportunities. Such forward looking statements reflect management’s current beliefs and assumptions and are based on information currently available to management. Forward looking statements involve significant known and unknown risks and uncertainties. A number of factors could cause actual results to differ materially from the results discussed in the forward looking statements including risks associated with vulnerability to general economic and business conditions, competition, environmental and other regulatory changes, the results of exploration and development drilling and related activities, actions by governmental authorities, the availability of capital markets, reliance on key personnel, uninsured and underinsured losses and other factors, many of which are beyond the control of the Company. Although the forward looking statements contained in this Document are based upon what management believes to be reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. Except as required by law, the Directors undertake no obligation to publicly update any forward looking statements, whether as a result of new information, future earnings or otherwise.

## DIRECTORS AND ADVISERS

<b>Directors</b>	<p>Ian Watson (<i>Non-Executive Chairman</i>) Fortune Mojapelo (<i>Chief Executive Officer</i>) Geoff Sproule (<i>Chief Financial Officer</i>) Anthony Viljoen (<i>Executive Director</i>) Jeremy Friedlander (<i>Non-Executive Director</i>)</p> <p>All of: Suite 3A, #5 Fricker Road, Illovo, 2116, Johannesburg, South Africa</p>
<b>Registered Office</b>	<p>18-20 Le Pollet St Peter Port Guernsey GY1 1WH</p>
<b>Principal Operating Address</b>	<p>Suite 3A #5 Fricker Road Illovo, 2116 Johannesburg South Africa</p>
<b>Nominated Adviser and Broker</b>	<p>Fox-Davies Capital Limited 1 Tudor Street London EC4Y 0AH</p>
<b>Solicitors to the Company as to English law</b>	<p>DWF LLP Bridgewater Place Water Lane Leeds LS11 5DY</p>
<b>Legal Counsel to the Company as to Guernsey law</b>	<p>Carey Olsen Carey House Les Banques St Peter Port Guernsey GY1 4BZ</p>
<b>Legal Counsel to the Company as to South Africa law</b>	<p>Edward Nathan Sonnenbergs 150 West Street Sandown Sandton Johannesburg 2196 South Africa</p>
<b>Solicitors to the Placing</b>	<p>Memery Crystal LLP 44 Southampton Buildings London WC2A 1AP</p>
<b>Reporting Accountants</b>	<p>Baker Tilly Corporate Finance LLP 25 Farringdon Street London EC4A 4AB</p>

<b>Auditor</b>	Baker Tilly UK Audit LLP 25 Farringdon Street London EC4A 4AB
<b>Competent Person</b>	MSA Geoservices Pty Ltd 20B Rothesay Avenue Craighall Park Johannesburg South Africa
<b>Registrar</b>	Capita Registrars (Guernsey) Limited Longue House St Sampson Guernsey GY2 4YN
<b>website</b>	<a href="http://www.bushveldminerals.com">www.bushveldminerals.com</a>

## DEFINITIONS

The following definitions apply throughout this Document, unless the context requires otherwise:

<b>“2006 Act”</b>	the UK Companies Act 2006 (as amended)
<b>“Admission”</b>	the admission of the Enlarged Share Capital to trading on AIM becoming effective in accordance with the AIM Rules for Companies
<b>“African Resources”</b>	African Resources Consulting Limited
<b>“AIM”</b>	the AIM market operated by the London Stock Exchange
<b>“AIM Mining, Oil &amp; Gas Companies Note”</b>	the ‘Note for Mining, Oil & Gas Companies’ published by the London Stock Exchange setting out specific requirements, rule interpretation and guidance relating to resource companies, as may be amended from time to time
<b>“AIM Rules”</b>	together the AIM Rules for Companies, the AIM Mining, Oil & Gas Companies Note, the AIM Rules for nominated advisers and the AIM Disciplinary Procedures and Appeals Handbook as may be amended from time to time
<b>“AIM Rules for Companies”</b>	the rules and guidance notes for companies with a class of securities admitted to AIM issued by the London Stock Exchange as may be amended from time to time
<b>“AIM Rules for Nominated Advisers”</b>	the AIM Rules for Nominated Advisers issued by the London Stock Exchange as may be amended from time to time
<b>“Amaraka”</b>	Amaraka Investments No. 85 (Pty) Limited, a private company incorporated and registered in South Africa with registration number 2011/006732/07
<b>“Amended Mining Charter”</b>	The Amendment of the Broad Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry, dated 20 September 2010
<b>“AMM”</b>	Afro Multi Minerals (Pty) Limited, a private company incorporated and registered in South Africa with registered number 2004/005467/07
<b>“Articles”</b>	the articles of incorporation of the Company adopted by special resolution on 15 March 2012
<b>“Awevest”</b>	African Woman Enterprise Investment (Proprietary) Limited, a private company incorporated and registered in South Africa with registration number 2005/039148/07
<b>“BEE”</b>	the Black Economic Empowerment programme launched by the Government of South Africa which embodies all Codes of Practice gazetted by the Government of South Africa and legislation
<b>“BEE Partners”</b>	Awevest, Cannosia, Izingwe and AMM
<b>“Bushveld Complex”</b>	the region of South Africa which is more particularly described in paragraph 2 of Part I of this Document



<b>“Bushveld Iron Ore Project”</b>	the Bushveld Iron Ore Project further details of which are in Part II of this Document
<b>“Bushveld Resources”</b>	Bushveld Resources Limited, a company incorporated and registered in Guernsey with registered number 48984
<b>“Bushveld Resources Group”</b>	Bushveld Resources and its subsidiary undertakings
<b>“Cannosia”</b>	Cannosia Trading 62 CC, a close corporation incorporated and registered in South Africa with registration number 2008/043188/23
<b>“Companies Law”</b>	The Companies (Guernsey) Law 2008, as amended
<b>“Company” or “Bushveld”</b>	Bushveld Minerals Limited, a company registered and incorporated in Guernsey with registered number 54506
<b>“Competent Person’s Report” or “CPR”</b>	the reports prepared by MSA Group for the Company and Fox-Davies Capital Limited on the Bushveld Iron Ore and Mokapane Tin projects, a copy of which are reproduced at Part III of this Document
<b>“Connected Person”</b>	as defined in sections 252 to 255 of the 2006 Act
<b>“CREST”</b>	the computerised settlement system used to facilitate the transfer of title to shares in uncertificated form operated by Euroclear
<b>“CREST Guernsey Requirements”</b>	CREST Rule 8 and such other of the rules and requirements of Euroclear as may be applicable to issuers as from time to time specified in the CREST Manual
<b>“CREST Manual”</b>	the compendium of documents entitled “CREST Manual” issued by Euroclear from time to time and comprising the CREST Reference Manual, the CREST Central Counterparty Service Manual, the CREST International Manual, the CREST Rules (including CREST Rule 8), the CCSS Operations Manual and the Crest Glossary of Terms
<b>“CREST Regulations”</b>	the Uncertificated Securities Regulations 2001 (SI 2001 No. 01/3755), as amended
<b>“Directors” or “Board”</b>	the directors of the Company whose names are set out on pages 26 and 27 of this Document
<b>“Disclosure and Transparency Rules”</b>	the disclosure and transparency rules made by the FSA in exercise of its function as competent authority pursuant to Part IV of FSMA
<b>“DMR”</b>	Department of Mineral Resources of the Republic of South Africa
<b>“Document”</b>	this admission document
<b>“Enlarged Share Capital”</b>	the issued ordinary share capital of the Company as it will be immediately following Admission, comprising the Existing Ordinary Shares and the Placing Shares
<b>“Euroclear”</b>	Euroclear UK & Ireland Limited, a company incorporated in England and Wales and the operator of CREST
<b>“Existing Ordinary Shares”</b>	the 255,304,110 Ordinary Shares in issue at the date of this Document

<b>“Fox-Davies Capital”</b>	Fox-Davies Capital Limited of 1 Tudor Street, London EC4Y 0AH, the Company’s nominated adviser and broker, authorised and regulated by the FSA
<b>“Frontier Platinum”</b>	Frontier Platinum Resources (Proprietary) Limited, a company incorporated in South Africa with registered number 2008/008035/07
<b>“FSA”</b>	the Financial Services Authority
<b>“FSMA”</b>	the Financial Services and Markets Act 2000, as amended
<b>“Group”</b>	the Company and its subsidiary undertakings
<b>“Greenhills”</b>	Greenhills Resources Limited, a company incorporated and registered in Guernsey with registered number 52682
<b>“Greenhills Group”</b>	Greenhills and its subsidiary undertakings
<b>“HDSA”</b>	a historically disadvantaged South African, as defined in the MPRDA
<b>“Izingwe”</b>	Izingwe Capital (Pty) Limited, a private company incorporated and registered in South Africa with registered number 2003/028048/07
<b>“Lock-in Agreements”</b>	the lock-in agreements, details of which are set out in paragraph 11.1(b) of Part VIII of this Document
<b>“London Stock Exchange”</b>	London Stock Exchange plc
<b>“Memorandum”</b>	the memorandum of incorporation of the Company, as amended from time to time
<b>“Mining Charter”</b>	together the Original Mining Charter and the Amended Mining Charter
<b>“Minister”</b>	the Minister of the Mineral Resources of South Africa
<b>“Mokopane”</b>	Mokopane Tin Company (Proprietary) Limited a private company incorporated and registered in South Africa with registration number 2010/018622107
<b>“Mokopane Tin Project”</b>	the Mokopane Tin Project further details of which are in Part III of this Document
<b>“MPRDA”</b>	the South African Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)
<b>“MPTRO”</b>	the Mineral and Petroleum Titles Registration Office in Pretoria
<b>“MSA”</b>	MSA Geoservices (Pty) Limited trading as The MSA Group, the consulting group that the Competent Person works for and who has prepared the Competent Person’s Report
<b>“MWI”</b>	Mineral Wealth International Limited, a company incorporated and registered in British Virgin Islands with registered number 1557782
<b>“Oak Nominees”</b>	Oak Nominees Limited, a company incorporated and registered in Guernsey with company number 788
<b>“Obtala”</b>	Obtala Resources Limited a company incorporated and registered in Guernsey with registered number 52184

<b>“Official List”</b>	the Official List of the UKLA
<b>“Ordinary Shares”</b>	ordinary shares of par value one pence in the capital of the Company
<b>“Original Mining Charter”</b>	the Broad Based Socio-Economic Empowerment Charter for the South African Mining Industry, 2002
<b>“Pamish 39”</b>	Pamish Investments No. 39 (Pty) Limited, a private company incorporated and registered in South Africa with registration number 2008/006931/07
<b>“Pamish 63”</b>	Pamish Investments No. 63 (Pty) Limited, a private company incorporated and registered in South Africa with registration number 2010/003345/07
<b>“Placees”</b>	subscribers for the Placing Shares under the Placing
<b>“Placing”</b>	the placing of up to 28,665,000 Ordinary Shares conditional on Admission pursuant to the Placing Agreement
<b>“Placing Agreement”</b>	the conditional agreement dated 20 March 2012 between the Company, the Directors and Fox-Davies Capital further details of which are set out at paragraph 11.1(a) of Part VIII of this Document
<b>“Placing Price”</b>	20 pence per Ordinary Share
<b>“Placing Shares”</b>	28,665,000 Ordinary Shares issued to the Placees pursuant to the Placing
<b>“PR”</b>	prospecting right
<b>“Projects”</b>	the Bushveld Iron Ore Project and the Mokopane Tin Project
<b>“Prospecting Right 2205”</b>	notarial prospecting right DMR ref. LP 30/5/1/1/2/2205PR
<b>“Prospecting Right 2371”</b>	application for prospecting right DMR ref. LP30/5/1/1/2/2371PR
<b>“Prospecting Right 438”</b>	notarial prospecting right DMR ref. LP30/5/1/1/3/2/438PR
<b>“Prospecting Right 95”</b>	notarial prospecting right DMR ref. LP30/5/1/1/3/2/95PR
<b>“Prospectus Rules”</b>	the Prospectus Rules of the FSA brought into effect on 1 July 2005 pursuant to Commission Regulation (EC)No. 809/2004 and the Prospectus Regulations 2005(SI 2005/1433)
<b>“QCA Guidelines”</b>	the Corporate Governance Guidelines for Smaller Quoted Companies published in September 2010 by the Quoted Companies Alliance (as amended or replaced from time to time)
<b>“Rand” or “SAR”</b>	South African Rand
<b>“Registrar”</b>	Capita Registrars (Guernsey) Limited of Longue Hougue House, St Sampson, Guernsey, GY2 4YN
<b>“Renetype”</b>	Renetype (Proprietary) Limited a private company incorporated and registered in South Africa with registration number 2009/011128/07
<b>“Shareholder”</b>	a holder of Ordinary Shares
<b>“South Africa”</b>	the Republic of South Africa
<b>“Sterling” or “£” or “GBP”</b>	the legal currency of the UK

<b>“Takeover Code”</b>	the City Code on Takeovers and Mergers (as amended)
<b>“Takeover Panel”</b>	the Panel on Takeovers and Mergers
<b>“UK” or “United Kingdom”</b>	the United Kingdom of Great Britain and Northern Ireland
<b>“UKLA”</b>	the United Kingdom Listing Authority, being the FSA acting in its capacity as the competent authority for the purposes of Part VI of FSMA
<b>“uncertificated” or “in uncertificated form”</b>	recorded on the register of Ordinary Shares as being held in uncertificated form in CREST, entitlement to which, by virtue of the CREST Regulations, may be transferred by means of CREST
<b>“United States” or “U.S.” or “USA”</b>	the United States of America, its territories and possessions, any state of the United States of America and the District of Columbia and all other areas subject to its jurisdiction
<b>“US\$” or “US Dollars”</b>	the United States currency unit
<b>“VAT”</b>	UK value added tax
<b>“VMI”</b>	VM Investment Company (Pty) Limited a private limited company incorporated and registered in South Africa with registration number 2007/009061/07
<b>“VML”</b>	VML Resources Limited a private limited company incorporated and registered in Guernsey with registered number 48113

All reference to times in this Document are to UK times unless otherwise stated. Reference to the singular shall include reference to the plural, where applicable, and *vice versa*.

#### **CURRENCY**

£ : SAR 12.09

£ : US\$ 1.586

SAR: US\$ 0.131

The currency prices were quoted on Bloomberg on 20 March 2012, the latest available time prior to publication of this document.

## GLOSSARY OF TECHNICAL TERMS – IRON ORE

<b>aeromagnetic survey</b>	surveys flown by helicopter or fixed wing aircraft to measure the magnetic susceptibility of rocks at or near the earth's surface
<b>amsl</b>	above mean sea level; refers to the elevation of any object, relative to the average sea level datum
<b>anorthosite</b>	intrusive igneous rock characterized by a predominance of plagioclase feldspar (90–100 per cent.), and a minimal mafic component
<b>apatite</b>	apatite is the principal phosphate mineral, $\text{Ca}_5(\text{PO}_4)_3(\text{F},\text{Cl},\text{OH})$ and used in the manufacture of fertilizer
<b>Archaean</b>	the oldest rocks of the Precambrian era, older than about 2 500 Ma
<b>basalt</b>	a common volcanic rock, dark and fine grained, relatively low in silica. May form very extensive lava flows
<b>basement</b>	the igneous and metamorphic crust of the earth, underlying sedimentary deposits
<b>bedrock</b>	the first hard and solid rock underlying soil or unconsolidated overburden
<b>breccia</b>	a coarse grained rock made up of large angular fragments, sometimes of various rock types
<b>carbonate</b>	a rock, usually of sedimentary origin, composed primarily of calcium, magnesium or iron and $\text{CO}_3$ . Essential component of limestones and marbles
<b>core drilling</b>	method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit
<b>chromite</b>	an oxide of chromium, $(\text{Mg},\text{Fe})\text{Cr}_2\text{O}_4$
<b>craton</b>	large, and usually ancient, stable mass of the earth's crust comprised of various crustal blocks amalgamated by tectonic processes. A cratonic nucleus is an older, core region embedded within a larger craton
<b>diamond drilling</b>	synonymous with core drilling
<b>Dip and dip direction</b>	the dip direction is the azimuth of the direction of the dip as projected to the horizontal, which is $90^\circ$ off the strike angle
<b>dyke</b>	a vertical or near vertical sheet of igneous rock, the widths of which may range from centimetres to hundreds of meters
<b>EIA</b>	Environmental Impact Assessment
<b>eluvium</b>	sediment derived from the physical and/or chemical decomposition of the underlying bedrock
<b>EMP</b>	Environmental Management Plan
<b>facies</b>	the sum of the lithological (and palaeontological) characters of a particular rock

<b>fault</b>	a fracture or fracture zone, along which displacement of opposing sides has occurred
<b>feldspar</b>	a rock-forming, light-coloured mineral belonging to the family of silicate minerals which occur in igneous rocks; ( $\text{KAlSi}_3\text{O}_8$ – $\text{NaAlSi}_3\text{O}_8$ – $\text{CaAl}_2\text{Si}_2\text{O}_8$ )
<b>Ga</b>	giga years (1 Ga = 1,000 million years)
<b>gabbro</b>	belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Clinopyroxene is the dominant mafic mineral
<b>gabbronorite</b>	belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Clinopyroxene and orthopyroxene are the dominant mafic mineral
<b>geophysical surveys</b>	instrumental surveys measuring small variations in the earth's magnetic field, gravity field or electrical conductivity (in addition to some other properties) related to local variations in rock type. Magnetic and some electrical methods can be carried out from an aircraft
<b>gneiss</b>	a coarse-grained, banded, high grade metamorphic rock
<b>gravity survey</b>	a geophysical survey technique which detects variations in the earth's gravity field due to variations in the specific gravity of the underlying rock
<b>GPS</b>	Global Positioning System. A satellite based navigation system able to give real time positions to approx $\pm 5$ m in X and Y using simple hand held instruments
<b>ha</b>	hectare = 10 000 m <sup>2</sup>
<b>ilmenite</b>	an iron, magnesium and titanium oxide ((Fe,Mg)TiO <sub>3</sub> )
<b>Indicated Mineral Resource</b>	an Indicated Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed. (CIM definition)
<b>Inferred Mineral Resource</b>	an Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. (CIM definition)
<b>intrusion</b>	liquid rock (magma) that forms below the surface of earth and slowly cools into a solid rock mass

<b>joints</b>	regular planar fractures or fracture sets in massive rocks, usually created by unloading, along which no relative displacement has occurred
<b>Layered Complex</b>	a body of igneous rock which exhibits vertical layering or differences in composition and texture and shows evidence of fractional crystallisation. Ideally, the stratigraphic sequence of an ultramafic-mafic intrusive complex consists of ultramafic peridotites and pyroxenites toward the base with more mafic norites, gabbros and anorthosites in the upper layers
<b>lineament</b>	a significant linear feature of the earth's crust
<b>Ma</b>	million years
<b>mafic</b>	descriptive of rocks composed dominantly of magnesium and iron rock-forming silicates
<b>magmatic</b>	rock formed from crystallisation of molten magma; an igneous rock
<b>magnetic survey</b>	a geophysical survey which measures variations in the earth's magnetic field caused by differences in the magnetic susceptibilities of underlying rock. Kimberlite may be detected by this method, as its susceptibility may be higher or lower than surrounding rock types
<b>magnetic susceptibility</b>	a dimensionless constant that indicates the degree of magnetisation of a material in response to an applied magnetic field
<b>Measured Mineral Resource</b>	a Measured Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity. (CIM definition)
<b>metamorphism</b>	alteration of rock and changes in mineral composition, most generally due to increase in pressure and/or temperature
<b>norite</b>	belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Orthopyroxene is the dominant mafic mineral
<b>olivine</b>	a dark-coloured magnesium iron silicate with the formula $(\text{Mg,Fe})_2\text{SiO}_4$
<b>Palaeozoic</b>	an era of geologic time between the Late Precambrian and the Mesozoic era, 545 Ma to 251 Ma ago
<b>petrography</b>	the description and classification of rocks
<b>Percussion drilling</b>	drilling by means of an air hammer which breaks the rock into chips which are brought to surface by air circulation

<b>plagioclase</b>	a rock-forming, light-coloured mineral belonging to the family of silicate minerals which occur in igneous rocks; ( $\text{NaAlSi}_3\text{O}_8$ – $\text{CaAl}_2\text{Si}_2\text{O}_8$ )
<b>Precambrian</b>	pertaining to all rocks formed before Cambrian time (older than 545 Ma)
<b>Proterozoic</b>	an era of geological time spanning the period from 2,500 Ma to 545 Ma before present
<b>ppm</b>	parts per million. Measure used to describe very low concentrations of a particular element in a rock
<b>PR</b>	prospecting Right
<b>pyroxene (ortho- and clino-)</b>	important dark-coloured rock-forming silicate mineral, occurring in both orthorhombic, orthopyroxene ( $\text{Mg,Fe}_2\text{Si}_2\text{O}_6$ ) and monoclinic, clinopyroxene form $\text{Ca(Mg,Fe) Si}_2\text{O}_6$
<b>RC drilling</b>	reverse circulation drilling. A percussion drilling technique in which the sample is brought to surface by air and/or water through the centre of the drill pipe
<b>SG or RD (relative density)</b>	specific gravity (SG) is the ratio of the density of a rock or any other substance to the density of a reference substance (normally water which has a relative density or specific gravity of 1). SG is a dimensionless unit
<b>spinel</b>	a group of oxide minerals of various compositions, $(\text{Mg,Fe,Mn})(\text{Al,Fe,Cr})_2\text{O}_4$ , commonly occurring as an accessory in basic igneous rocks
<b>strike</b>	horizontal direction or trend of a geological structure
<b>Ti-magnetite</b>	an iron oxide minerals ( $\text{Fe}_2\text{O}_3$ ) of the spinel group with a high titanium content (generally in excess of 5% $\text{TiO}_2$ )
<b>tonne</b>	a metric tonne, 1,000 kg
<b>tectonic</b>	pertaining to the forces involved in, or the resulting structures of, movement in the earth's crust
<b>Transvaal Supergroup</b>	the Transvaal Supergroup consists of 2.65–2.05 Ga clastic, pelitic and chemical sediments with minor lava flows that surface in the Transvaal Basin which circumscribes the Bushveld Complex
<b>troctolite</b>	mafic intrusive rock consisting of olivine, plagioclase and minor pyroxene
<b>ultramafic</b>	igneous rocks consisting essentially of ferromagnesian minerals with trace quartz and feldspar
<b>variography</b>	in spatial statistics, a process of graphing statistics which relate to the variance of the difference in value between pairs of samples to the distance between them. Allows the weighting of a sample value in terms of its distance from the point where an estimate of sample value is required
<b>VTM</b>	vanadiferous and titaniferous magnetite; vanadium and titanium occur in the magnetite crystal structure as “solid solution”



**vanadium**

a chemical element with the symbol V and atomic number 23. It is a hard, silvery gray, ductile and malleable transition metal

**width (apparent and true width)**

the width of a tabular formation as determined by borehole intercepts. The apparent width will always be greater than the true width if the borehole intersects the tabular body at any direction and angle other than perpendicular to the surface of the body. An intersection perpendicular (at a 90° angle) to the tabular body will provide the true width of this formation

## GLOSSARY OF TECHNICAL TERMS – TIN

“°C”	degrees Celsius
“anomaly/adj: anomalous”	an area distinguished by geological, geochemical or geophysical features/values which are different from the surrounding areas
“assay”	an analysis to determine the presence, absence or concentration of one or more chemical components
“CAGR”	compound annual growth rate
“Cassiterite”	is a tin oxide mineral SnO <sub>2</sub> . It is generally opaque, but it is translucent in thin crystals
“concentrates”	product of flotation recovery process; concentrated mineral product (e.g. tin concentrates)
“cut-off”	grade of mineral sought required to break even with specific mining and processing costs
“DCF”	discounted cash flow
“drilling”	in mineral exploration, boring a hole into prospective ground to recover core or cuttings indicative of rock types and grades of mineralisation
“dyke”	steeply-dipping tabular body of igneous rock that cuts across the structure of the enclosing rocks
“feasibility study”	feasibility study of a deposit in which all geological, engineering, operating, economic and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production
“g”	Gram
“grade”	average quantity of metal in a rock (e.g. percentage by weight, g/t)
“ha”	hectare(s)
“Indicated Resource”	an ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed (JORC Code, 2004)
“Inferred Resource”	an ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability (JORC Code, 2004)

<b>“IP survey”</b>	induced polarisation survey; exploration method based on electrical properties which can detect low to moderate levels of sulphide mineralisation
<b>“IRR”</b>	internal rate of return
<b>“JORC”</b>	the Joint Ore Reserves Committee (of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia)
<b>“km”</b>	kilometre(s)
<b>“km<sup>2</sup>”</b>	square kilometre(s)
<b>“lb”</b>	Pound
<b>“m<sup>3</sup>”</b>	cubic metres
<b>“Measured Resource”</b>	a ‘Measured Mineral Resource’ is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity (JORC Code, 2004)
<b>“metallurgy”</b>	the domain of materials science that studies the physical and chemical behaviour of metallic elements, their intermetallic compounds and their mixtures
<b>“mineralisation”</b>	the process of ore minerals forming by alteration processes
<b>“Mineral Resource”</b>	a ‘Mineral Resource’ is a concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories (JORC Code, 2004)
<b>“Mt”</b>	millions of tonnes
<b>“Mtpa”</b>	million tonnes per annum, a measure of ore processing capacity
<b>“NPV”</b>	net present value at a 10 per cent. discount rate
<b>“Ore Reserve”</b>	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 may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves (JORC Code, 2004)

<b>“QAQC”</b>	quality assurance and quality control
<b>“resource”</b>	an estimate on the tonnage and grade of mineralisation before the application of mining dilution and recovery factors
<b>“smelter”</b>	a metallurgical complex in which material is melted in order to separate impurities from pure metal
<b>“strike”</b>	exploration method in which sediment and rock samples are collected from creeks and rivers
<b>“tenement”</b>	general term for an area in which a licence has been granted by a government to allow exploration, development and/or mining activities
<b>“tonnes” or “t”</b>	a metric tonne (1,000 kilograms or 2,204.62 pounds)
<b>“USGS”</b>	U.S. Geological Survey, a U.S. government source for science about the Earth, its natural and living resources, natural hazards and the environment

## PART I

### INFORMATION ON THE GROUP

#### 1. Introduction

The Company is a mineral development company focused on exploring and developing mineral projects on the Bushveld Complex in South Africa. The Company's primary project is the Bushveld Iron Ore Project and in addition the Company holds the Mokopane Tin Project, both located on the northern limb of the Bushveld Complex.

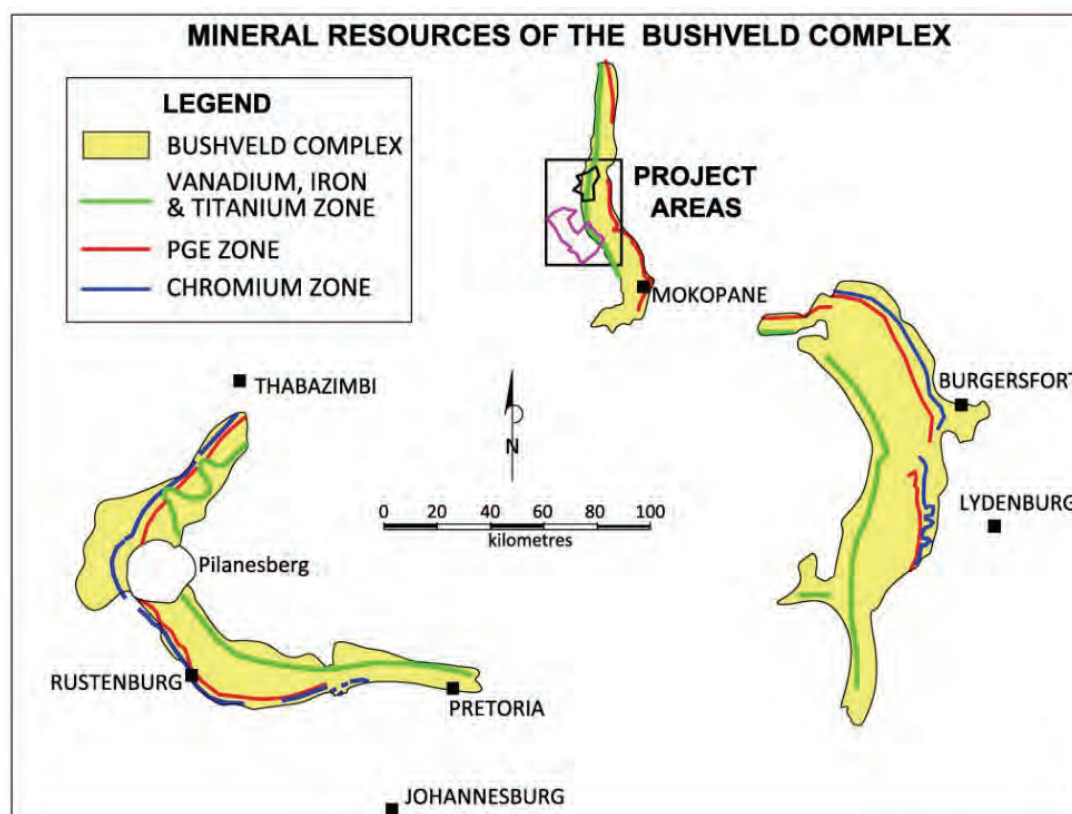
The Company was incorporated on 5 January 2012 in Guernsey and is the holding company of a group developing a portfolio of iron ore and tin projects in South Africa through its wholly owned subsidiaries Bushveld Resources Limited and Greenhills Resources Limited respectively.

#### 2. The Bushveld Complex

The Bushveld Complex is approximately 66,000 square kilometre metallogenic province hosting deposits that rank among the world's top three largest for platinum group metals, chrome and vanadium. The province also hosts significant resources of tin, fluorspar, uranium and Ti-magnetite.

The management team believes that the Bushveld Complex continues to provide a substantial number of geological targets especially across iron ore commodities. The management team will seek to identify opportunities in the Bushveld Complex that are capable of rapid development due to the well understood mineralisation in the Bushveld Complex.

The Group has focused on the exploration of iron ore and tin projects following due diligence on a number of projects. The Directors believe that the Company's iron ore and tin projects provide the potential for substantial value creation based on the first phase drilling in 2010 and 2011 and further exploration programmes planned for 2012.



Source: Figure 7-1, CPR on the Bushveld Iron Ore Project.

### **3. Management Team and Consultants**

The Company's management team has a proven track record of identifying, developing and managing mineral exploration projects. The management team has extensive experience of exploration and mining geology, mining engineering and metallurgy on the African continent and in particular the Bushveld Complex. Also, the management team has developed strong networks in Africa and has the ability to work with a number of mining related organisations to advance mineral exploration projects more rapidly.

The geological consultants to the Company are Prof. Richard Viljoen and Prof. Morris Viljoen, who are widely recognised as leading geological consultants in South Africa with particular experience of the Bushveld Complex. They have been associated with leading studies on key geological projects including the Amalia and Blaaubank lode gold deposits, the Akanani/Afri Ore platinum project and the Uramin uranium project.

Fortune Mojapelo and Anthony Viljoen as executive directors have been responsible for developing projects from greenfield through to the maiden resource in recent years. The Board and its consultants have substantial experience of mineral projects in the Bushveld Complex and public company matters.

### **4. Group Strategy**

Following Admission, the Group intends to focus on the further exploration and development of each Project with a particular focus on the Bushveld Iron Ore Project. It is the Group's intention to establish strong iron ore and tin operations comprising attractive deposits with the potential for rapid development. The Directors intend to continue to identify and evaluate other possible opportunities for the acquisition of iron ore and tin projects in Africa where appropriate.

The Directors intend to leverage the Group's target generation capabilities to identify opportunities for investment in projects and companies which are, in their opinion, undervalued, or capable of producing a satisfactory return for Shareholders. The criteria for reviewing any additional projects will be the scope for the development of relatively large scale resources, attractive cost-curve positioning and located in countries which the Directors understand fully and have previous operational success.

The Directors have focused on iron ore and tin projects because of the potential return from developing the Projects and their expertise in the commodity groups.

### **5. The Projects**

The Company's primary project is the Bushveld Iron Ore Project and in addition the Company has an interest in the Mokopane Tin Project.

For the purpose of this document the term "Iron Ore" refers to vanadium and titanium bearing magnetite (VTM) which by its nature requires specific metallurgical processing to remove vanadium and titanium in order to arrive at a feedstock for a standard iron ore smelter. Metallurgical test work to determine the recoveries of iron, titanium and vanadium and the associated costs are yet to be conducted.

- The Bushveld Iron Ore Project comprises two prospecting rights covering 7,409 ha where a JORC compliant open-castable Mineral Resource in excess of 260 million tonnes Indicated and a further 373 million tonnes Inferred has been established over a strike length of 4 km for the P-Q Zone and 5.5 km for the MML. According to an interpretation, undertaken by the Company's geologists, of regional geophysical and geochemical surveys, conducted by the Council of Geoscience (CGS), as well as satellite imagery interpretation, potential exists for significant extensions of the P-Q Zone mineralisation along strike. This potential will be evaluated by drilling once the prospecting rights to these contiguous properties have been secured.
- The Mokopane Tin Project consists of one licence covering 13,422 ha of shallow disseminated tin resource between surface and approximately 70 m. The Company has explored one target and plans to drill at a further four targets. The Company has a JORC resource in excess of 5,000 tonnes of tin and is looking to expand the resource base by undertaking a drilling programme on the other three

targets in the licence area and one target in a licence area currently under application. In the longer term, the Company intends to expand the resource base by acquiring further projects.

The Company's objectives during the course of the next 18 months are set out below.

### ***The Bushveld Iron Ore Project***

The Company plans the following diamond drilling programme on the existing farms to be part of the Pre-Feasibility Study planned to be completed by mid-2013:

- In-fill drilling and core sampling/assaying to upgrade the Inferred Mineral Resource to an Indicated Mineral Resource category and the Indicated Mineral Resource to a Measured Mineral Resource category
- Drill-testing and core sampling/assaying on the Malokong and Vogelstruisfontein farms to at least an Inferred Mineral Resource level

In addition to the envisaged drilling campaigns, the Company plans to complete the following activities on the Bushveld Iron Ore Project by mid-2013:

- Indicated/Inferred Mineral Resource Estimation on the existing and new farms
- Trenching to expose weathered material for processing and metallurgical test work
- Ore characterisation and beneficiation/recovery test work
- Bulk sampling for preliminary pyrometallurgical test work
- Product definition and marketing studies, including initiating discussions with potential off-take partners with the aim of securing off-take agreements for mine products
- Mining Scoping Studies
- Environmental studies as stipulated and required by the DMR
- Hydrogeological studies
- Infrastructure (rail and road) and utility (power and water) studies

Concurrently with the above exploration and evaluation programme on the current farms, the Company intends to acquire additional farms adjacent to the existing Bushveld Iron Ore Project area and carry out the following prospecting programme and target evaluation to confirm continuity of the VTM mineralisation over an additional strike length of approximately 10 km. The planned activities include:

- Geological mapping and ground magnetic survey
- Soil sampling to aid in delineating sub-outcrop positions of the mineralisation
- Trenching to verify sub-outcrop positions and to test oxidised VTM material
- Diamond drilling programme to determine continuity of the mineralisation
- Preliminary Mineral Resource Estimation

### ***Mokopane Tin Project***

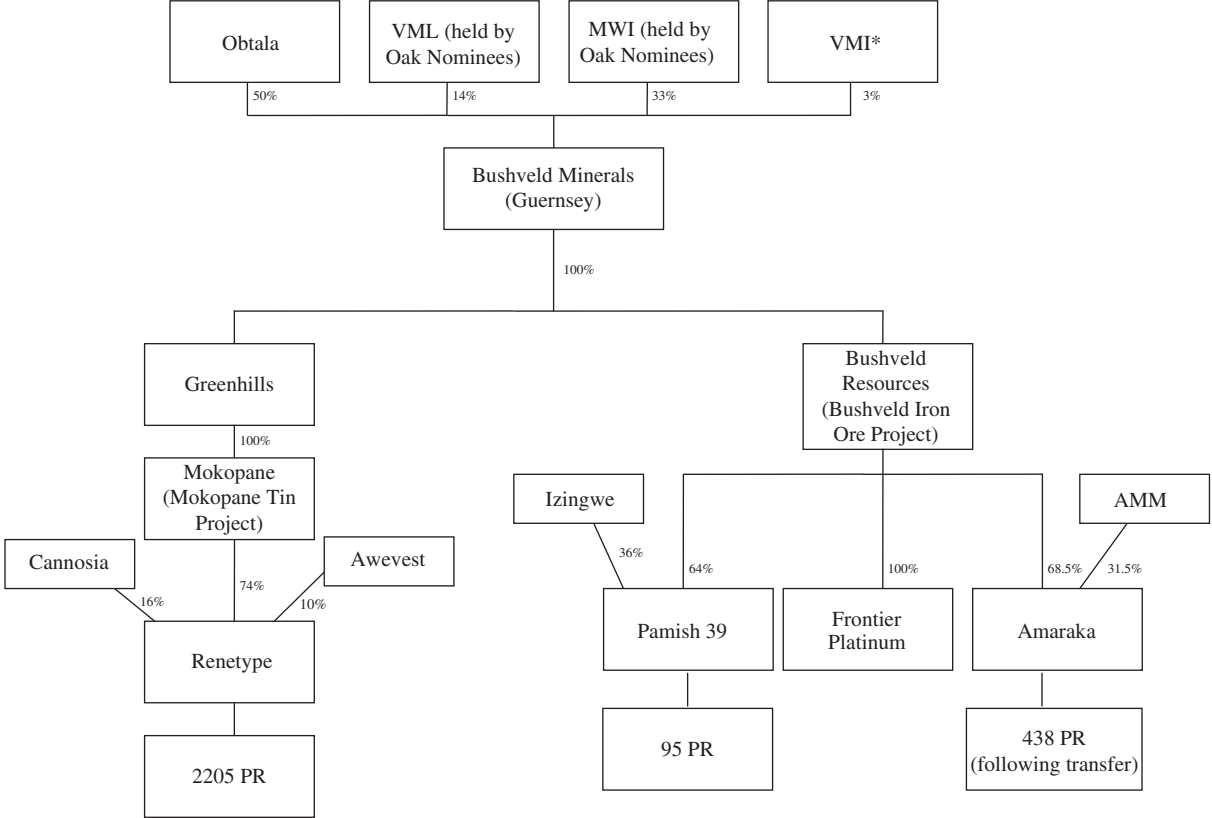
The Company plans the following diamond drilling programme on the existing farms and targets:

- In-fill drilling and core sampling/assaying on the Groenfontein and Zaaiplaats targets to establish an Inferred Mineral Resource and to upgrade the identified Inferred Mineral Resource to an Indicated Mineral Resource category and the Indicated Mineral Resource to a Measured Resource category
- Drill-testing and core sampling/assaying on the other targets to at least an Inferred Mineral Resource level

Further, the Company intends to carry out metallurgical testwork and complete a pre-feasibility study on some of the existing targets. This is expected to include the following activities:

- Drilling programme to establish an Inferred and/or Indicated Mineral Resource on the identified targets
- Ore characterisation and beneficiation/recovery test work
- Bulk sampling for preliminary pyrometallurgical test work
- Product definition and marketing studies
- Mining Scoping Studies
- Environmental studies as stipulated and required by the DMR
- Hydrogeological studies
- Infrastructure (rail and road) and utility (power and water) studies

**6. The Group (Pre-Admission to AIM)**



\*VMI is controlled by Fortune Mojapelo and Anthony Viljoen.

The Company was established to be the holding company of Bushveld Resources and Greenhills and their respective subsidiaries.

The Company acquired the entire issued share capital of Bushveld Resources from its shareholders Obtala and MWI, and the entire issued share capital of Greenhills from its shareholders Obtala and Oak Nominees (whose shares were held on behalf of VML), on 15 March 2012 in each case in exchange for shares in the capital of the Company.



Immediately prior to Admission, the shareholders of the Company will be Obtala, MWI, VML (with MWI's and VML's shares being legally held by Oak Nominees) and VMI who own 51.1 per cent., 32.9 per cent., 12.8 per cent. and 3.2 per cent. of the Existing Ordinary Shares respectively. Following the Placing, assuming that it is fully subscribed, their interests in the Enlarged Issued Share Capital will be 46 per cent., 29.6 per cent., 11.5 per cent. and 2.9 per cent. respectively.

Greenhills owns the entire issued share capital of Mokopane, which in turn owns 74 per cent. of the issued share capital of Renetype, the other 26 per cent. is held by BEE partners. Renetype has acquired Prospecting Right 2205 and is the applicant for Prospecting Right 2371. Further details relating to Greenhills, its subsidiaries and prospecting rights are contained in Part III of this Document.

Bushveld Resources owns 64 per cent. of the issued share capital of Pamish 39, 68.5 per cent. of the issued share capital of Amaraka, and the entire issued share capital of Frontier Platinum. Pamish 39 has acquired Prospecting Right 95. Amaraka has agreed to acquire Prospecting Right 438 from AMM once that prospecting right has been renewed. Further details relating to Bushveld Resources, its subsidiaries and prospecting rights are contained in Part II of this Document.

**Further details on the Group's organisation structure, including an organisation chart, are contained in paragraph 3 of Part VIII of this Document.**

## 7. Licences and Rights

The following Prospecting Rights (PR) were granted in terms of Section 16 of the MPRDA:

### Bushveld Iron Ore Project

<i>PR Number</i>	<i>Current holding Company</i>	<i>Bushveld Interest (%)</i>	<i>Minerals</i>	<i>Status</i>	<i>Area (ha)</i>
95PR	Pamish 39	64% (held through Pamish 39)	Platinum Group Metals, Cobalt, Copper, Nickel, Chrome, Iron Ore, Vanadium, Titanium and all minerals that may be found in intimate association with the latter	Right renewed on 30/05/2011 for 3 years	5545.5600
438PR	Afro Multi Minerals (Pty) Ltd	68.5% (currently held by AMM and to be held through Amaraka)	Copper Ore, Cobalt, Nickel, Iron Ore, Titanium Ore and Platinum Group Metals	Renewal Application submitted; Section 11 Application to be submitted upon approval of renewal	1863.9378

Prospecting Right 95 was initially granted for a period of 5 years to Izingwe on 9 November 2005 and transferred to Pamish 39 in terms of Section 11 of the MPRDA. The approval of a Section 11 transfer was granted on 27 July 2009 and an application for renewal for a further three year period was accepted on 30 May 2011. The renewal was executed on 16 March 2012 and Prospecting Right 95 will expire three years after the date. Pamish 39 applied to the MPTRD to be registered as the holder of Prospecting Right 95 on 20 March 2012. The registration is an administrative process that is expected to be completed in around 30 business days.

### **PR 438 (under renewal application)**

The PR covers one farm being Malokong 784 LR. The PR is subject of a renewal application that is pending at the time of Admission. The management believe that this PR might not form a material part of the future exploration and development strategy of the Group. Prospecting Right 438 was granted on 7 March 2007 for an initial period of 4 years to AMM. On 3 March 2011, AMM submitted a renewal application in terms of Section 18 for a further period of 3 years which is currently pending with the DMR. A Section 11 application to transfer the Prospecting Right to Amaraka is planned but can only be submitted to the DMR after the application for renewal has been granted.

### **Mokopane Tin Project**

<i>Asset</i>	<i>Holder</i>	<i>Status</i>	<i>Licence Expiry Date</i>	<i>Licence Area(ha)</i>	<i>Group Interest</i>
2205PR	Renetype (Pty) Ltd	Prospecting	13 July 2015	13,421	74%

Prospecting Right 2205 was granted to VMI on 14 July 2010 and transferred to Renetype in terms of Section 11 of the MPRDA. The approval of the Section 11 transfer was granted on 1 December 2011, and Renetype applied to the MPTR0 to be registered as the holder of Prospecting Right 2205 on 16 March 2012. The registration is an administrative process that is expected to be completed in around 30 business days.

### **PR 2371 (under application)**

Renetype applied for the grant of Prospecting Right 2371 on 23 June 2009 which is currently being processed by the DMR. The Group does not expect this to be granted prior to Admission.

## **8. VMI**

The Projects were sourced and managed by VMI, a natural resources investment group based in Johannesburg, South Africa founded and controlled by Fortune Mojapelo and Anthony Viljoen. Professor Richard Viljoen and Professor Morris Viljoen are consultants to VMI and assist with reviewing target projects and advising on their geological merit.

VMI was the original holder of the Mokopane Tin Project and subsequently sold Prospecting Right 2205 to Renetype, a subsidiary of the Company.

VML has agreed that certain of the Ordinary Shares to which it is entitled following the acquisition by the Company of its interest in Greenhills should be issued to VMI. Further details of this agreement are set out in paragraph 11.2(b) of Part VIII. Following Admission, VMI and VML will own 2.9 per cent. and 11.5 per cent. respectively of the Enlarged Issued Share Capital.

## **9. Obtala Resources Limited**

Obtala is quoted on the AIM market of the London Stock Exchange. Obtala has a portfolio of exploration and development projects in Africa across a range of commodities. Obtala and MWI have jointly invested in the Bushveld Iron Ore Project and the Mokopane Tin Project through drilling programmes in 2010 and 2011 resulting in maiden resources for each project.

Obtala agreed to acquire 50 per cent. of the issued share capital of each of Greenhills and Bushveld Resources in return for such investment. Subsequently, Obtala, MWI and VML each agreed to sell their interests in Greenhills and Bushveld Resources (as applicable) to the Company, in exchange for Ordinary Shares. Further details of all such agreements are contained in paragraphs 11.2(j) and 11.2(m) of Part VIII.

Following Admission, Obtala and MWI will own 46 per cent. and 29.6 per cent. respectively of the Enlarged Issued Share Capital.

## 10. Investment Highlights

- Strong market fundamentals** • Market fundamentals for iron ore and tin are robust for medium term
- Quality assets with significant upside** • Large iron ore Resource of 260 million tonnes in Indicated and 373 million tonnes in Inferred categories with scope to increase Resource base significantly within 12 months
  - Currently the iron ore Resource is defined over a strike length of 4 km for the P-Q Zone and 5.5 km for the MML with potential to increase the strike extent on the existing and adjacent farms considerably
- Near term cash flow** • Tin asset could be brought into production within an 18-24 month timeframe, subject to a techno-economic study
  - Resulting cash flows could aid further development of the Mokopane iron ore project
- Favourable mining cost** • Favourable cash operating costs expected
  - Simple magnetic separation process to produce a high grade VTM concentrate
  - Scope for Vanadium, Titanium and possibly Phosphate credits to enhance cost curve position of resource
- Experienced management team** • Leading geologists with over 30 years expertise and significant mineral discovery record
  - Successful entrepreneurial track record in the minerals sector
  - Partnership with Obtala
- Location & jurisdiction** • Bushveld Complex is a well-established and prolific mining province
  - South African government support for beneficiation focused on Limpopo Province and cooperation with BRIC countries (Brazil, Russia, India and China)
  - Stable mining jurisdiction with sound mining laws
  - South African government interest in developing alternative steel producers in the country
  - Well developed infrastructure
- Good entry point** • Opportunity for substantial upgrade to existing iron ore resource base
  - Further new targets in major new iron ore province
  - Only 1 of 5 tin targets drilled

**Further information on the Projects can be found in Parts II, III, V and VI of this document.**

## **11. Use of Proceeds**

<i>Activity</i>	<i>Iron Ore £m</i>	<i>Tin £m</i>	<i>Total £m</i>
General geological studies – mapping, Landsat interpretation, geophysics, geochemical sampling etc.	0.12	0.04	0.16
Drilling (9,000 and 1,000 metres respectively)	1.00	0.19	1.19
Metallurgical testing	0.68	0.04	0.72
Infrastructure studies	0.04	0.05	0.09
Mining & engineering studies	0.11	0.05	0.16
Acquisitions of licences	0.04	–	0.04
Technical operational costs	0.58	0.05	0.63
	<u>2.57</u>	<u>0.42</u>	<u>2.99</u>
Obtala loan repayment			0.27
General & administration			1.37
Contingency			0.23
Total net proceeds			<u>4.86</u>

## **12. Directors and Senior Management**

### *Directors*

#### *Ian Watson (aged 69), Non-executive Chairman*

Mr Watson trained as a mining engineer and has considerable experience in the African mining sector. His previous roles include Managing Director of Northam Platinum, CEO of Platmin Limited, CEO of International Ferro Metals ( SA) and Consulting Engineer at Gold Fields Limited. Currently, he is a Non-Executive Director on board of the Shaft Sinkers (Pty) Ltd.

#### *Fortune Mojapelo (aged 35), Executive Director*

Mr Mojapelo is a mining entrepreneur and founding shareholder of VM Investment Company (Pty) Ltd, a principal investments and advisory company focusing on mining projects in Africa. Mr Mojapelo has played a leading role in the origination, establishment and project development of several junior mining companies in Africa including New Kush Exploration and Mining (Gold in South Sudan), Greenhills Resources (Tin), Bushveld Resources Limited (Iron Ore), New Horizon Minerals (Iron Ore), Bushveld Platinum Limited (PGMs) and Eagle Resources Limited (Uranium). Mr Mojapelo graduated from University of Cape Town with a B.Sc (Actuarial Science). He has previously worked at the global consulting firm McKinsey & Company as a strategy consultant, where he worked on corporate strategy and organisational development in several sectors in South Africa and Nigeria.

#### *Anthony Viljoen (aged 35), Executive Director*

Mr Viljoen is a mining entrepreneur and founding shareholder and director of VM Investment Company (Pty) Ltd, a principal investments and advisory company focusing in mining. Mr Viljoen has been involved for the establishment and project development of a number of junior mining companies across Africa, including New Kush Exploration and Mining (Gold in South Sudan), Lemur Resources (Coal and listed on the ASX), Greenhills Resources (Tin), New Horizon Minerals (Iron Ore), Frontier Platinum Resources and Eagle Uranium. Mr Viljoen graduated from the University of Natal, Pietermaritzburg with a Bachelor of Business and Agricultural Economics and a Post Graduate Diploma in Finance Banking and Investment Management. Mr Viljoen is currently studying towards a Masters degree in African Development Finance through the University of Stellenbosch. Mr Viljoen has previously worked at Deutsche Bank, Barclays Capital in London and Loita Capital Partners, a pan African investment banking firm.

*Geoff Sproule (aged 69), Finance Director*

Mr Sproule is a chartered accountant with more than 40 years experience in various financial management roles. He is a former partner of auditing firm Deloitte & Touche, South Africa. Mr Sproule's directorships include the property related J H Issacs Group of Companies.

*Jeremy Friedlander, (aged 57), Non-executive Director*

Jeremy has a BA LLB from University of Cape Town and practiced as an attorney after completing his Articles in Cape Town. He joined the Old Mutual as a legal advisor and in 1993 established McCreedy Friedlander, which became one of the premier property agencies in South Africa and negotiated an association with Savills. In 1998 he listed McCreedy Friedlander as part of a financial services group on the JSE and shortly afterwards relocated to London. In the United Kingdom Jeremy has been involved in a number of property transactions. More recently Jeremy was a director Onslow Resources (Oil and gas in Namibia and Yemen). He is business development director of a number of Avana companies involved in uranium, coal, gold, oil and gas and industrial minerals. Over the past six years has been involved in the establishment of a number of natural resource projects predominantly in Africa and South America.

### **13. Consultants**

*Prof. Richard Viljoen*

Prof. R Viljoen has over 30 years experience in the mining industry including 15 years as chief consulting geologist for Gold Fields of South Africa. Notable past experience includes the development of significant mines including Northam Platinum, and the Leeudoorn and Tarkwa gold mines, identifying and development of a significant platinum deposit in the Bushveld complex for Akanani Resources, acting as consultant for exploration and mining companies in Canada, Mexico, Venezuela, India and China in the fields of base metals, gold and platinum, A number of Competent Persons Report for projects including the Witwatersrand South Reef Project, Doornkop mine project and the Uramin uranium project.

*Prof. Morris Viljoen*

Prof. M Viljoen has over 30 years experience in the mining industry following a role with JCI in base metals (including nickel, copper antimony, gold and platinum) exploration and mining in Southern Africa and as consulting geologist for Rustenburg Platinum Mines (part of Anglo Platinum Limited). Moreover, he has been Professor of Mining Geology at the University of Witwatersrand for the last 13 years and established the Centre for Applied Mining and Exploration Geology that identifies and develops mineral projects including the Amalia and Blaaubank lode gold deposits, the Akanani/Afri Ore platinum project and the Uramin uranium project.

### **14. Employees**

Other than the Directors, the Group has four employees and three contract workers as of the date of this Document, all of whom work in South Africa. Three employees and two workers are responsible for exploration and development activities and one employee and worker provides administrative and finance support. Following Admission, the contract workers will become full time employees of the Group. Furthermore, the Group intends to appoint further employees following Admission.

### **15. BEE Partners**

Section 2(d) and section 100(2)(a) of the MPRDA and the Mining Charter comprise the law relating to BEE insofar as it applies to mining companies.

One of the objects of the MPRDA, set out in section 2(d) is to “substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation's mineral and petroleum resources”.

The Mining Charter defines a BEE entity as an entity of which a minimum of 25 per cent. plus one vote of share capital is directly owned by a HDSA.

Each of Prospecting Rights 2205, 95 and 438 makes it a condition for the holder to comply with the above object of the MPRDA, and therefore each of Renetype, Pamish 39 and Amaraka must be BEE entities.

For that reason, each of Renetype, Pamish 39 and Amaraka have the required percentage of their issued share capital held by BEE partners. Details of those holdings are as follows:

<i>Name of BEE partner</i>	<i>Licence</i>	<i>Interest % in subsidiary</i>	<i>Subsidiary</i>
Izingwe Capital (Pty) Ltd	95PR	36%	Pamish 39
Afro Multi Minerals (Pty) Ltd	438PR (held by AMM at the date of this Document pending renewal and transfer)	31.5%	Amaraka
African Woman Enterprise Investment (Pty) Limited and Cannosia Trading 62CC	2205PR	16%	Renetype
		10%	Renetype

## 16. Financial information

Set out in Part VII sections B and D respectively of this Document are financial information on Greenhills for the period from incorporation to 28 February 2011 and the six months to 31 August 2011.

Set out in Part VII sections F and H respectively of this Document are financial information on Bushveld Resources for the period from incorporation to 28 February 2011 and the six months to 31 August 2011.

The Company has obtained derogation from Annex I, paragraph 20.1 of the AIM Rules for reporting on Bushveld Minerals, Renetype and Amaraka.

Bushveld Minerals has not commenced operations and it has no material assets or liabilities and therefore no financial statement has been prepared as at the date of the admission document. Renetype and Amaraka have been reported as acquisitions in the post balance sheet notes and their historical financial information has been disclosed as set out in Part II and III of this document.

## 17. Reasons for Admission

The Company is seeking Admission in order to take advantage of AIM's profile, broad investor base, liquidity and access to institutional investors. As set out in the Use of Proceeds section, the Company intends to use the funds raised in Placing to complete further drilling and development of the Projects, to provide working capital and to evaluate and potentially acquire additional complementary projects.

## 18. Current trading, future prospects, significant trends

Save as disclosed in this Document, there have been no significant trends concerning the development of the business of the Group. As at 31 January 2012 Bushveld Resources and Greenhills have incurred the following expenditure since the date of the latest financial information presented in this Document, being the unaudited interims dated 31 August 2011.

	<i>Greenhills (Tin) £</i>	<i>Bushveld (Iron) £</i>	<i>Total £</i>
Geological	106,167	13,850	120,017
Wages	24,267	7,609	31,876
Admin costs	23,829	15,936	39,765
Total	<u>154,263</u>	<u>37,395</u>	<u>191,658</u>

The larger expenditure incurred on the Mokopane Tin Project is not representative of the level of activity anticipated over the life of the project, but is a function of an increased focus on the tin project over this period before significantly increased expenditure is anticipated on the Bushveld Iron Ore Project.

## **19. Details of the Placing**

Fox-Davies Capital has conditionally agreed, pursuant to the Placing Agreement and as agent for the Company, to use its reasonable endeavours to procure subscribers for the Placing Shares at the Placing Price. The Placing will raise approximately £5.6 million for the Company (before commissions and expenses). The Placing Shares are being placed with institutional and other investors. The Placing Shares will represent approximately 10 per cent. of the Enlarged Share Capital. The Placing has not been underwritten and is conditional, *inter alia*, on Admission occurring by 26 March 2012 (and in any event no later than 31 March 2012) and on the Placing Agreement not being terminated. Further details of the Placing Agreement are set out in paragraph 11.1(a) of Part VIII of this Document.

The Placing Shares will, on issue, rank *pari passu* in all respects with the Existing Ordinary Shares, including the right to receive all dividends or other distributions thereafter declared, made or paid. The rights attaching to the Ordinary Shares are set out in paragraph 7 of Part VIII of this Document.

In the case of Placees requesting Placing Shares in uncertificated form, it is expected that the appropriate CREST accounts of Placees will be credited on or around 26 March 2012. In the case of Placees requesting Placing Shares in certificated form, it is expected that certificates in respect of the Placing Shares will be despatched by post within seven days of the date of Admission.

## **20. Lock-in and orderly market arrangements**

At Admission, the Directors, Obtala, MWI, VML, VMI and Andrew Fox (the “Locked-in Parties”) will together own 255,429,110 Ordinary Shares representing approximately 90 per cent. of the Enlarged Share Capital. The Locked-in Parties have undertaken to the Company and Fox-Davies that they will not sell or dispose of, except in certain limited circumstances permitted under Rule 7 of the AIM Rules for Companies, any of their respective interests in Ordinary Shares at any time before the first anniversary of Admission. The Directors, Obtala, MWI, VML, VMI and Andrew Fox will also be subject to orderly marketing arrangements during the twelve months following the initial one year lock-in period. This undertaking is more particularly set out in the Placing Agreement and the Lock-in Agreements, further details of which are set out at paragraphs 11.1(a) and 11.1(b) of Part VIII of this Document.

## **21. Admission to AIM and dealings in Ordinary Shares**

Application will be made for the Enlarged Share Capital to be admitted to trading on AIM. It is expected that Admission will become effective and dealings in the Ordinary Shares will commence on 26 March 2012.

Fox-Davies Capital has been appointed as the Company’s nominated adviser and broker in relation to Admission. Further details on Fox-Davies Capital’s engagement is set out at paragraph 11.1(c) of Part VIII of this Document.

## **22. Relationship Agreement**

Obtala has entered into a relationship agreement with the Company and Fox-Davies pursuant to which, conditional upon Admission, it has undertaken to the Company and Fox-Davies that for so long as it and its associates hold 30 per cent. or more of the voting rights attached to the issued Ordinary Shares, it shall (and as far as it is able to do shall procure that its associates shall) use its reasonable endeavours to procure (including by the exercise of its voting rights) that the Group is capable of carrying on business independently of it, that the Articles are not amended to fetter the Company’s ability to carry out its business independently of it, that transactions between any member of the Group and Obtala are made at arm’s length on a normal commercial basis and approved by directors independent of it and that any disputes between it and any member of the Group shall be dealt with by a committee comprising only independent directors. Additionally, Obtala will not seek to appoint or remove any director other than with the support of the independent directors.

### **23. Dividend policy**

The nature of the Company's business means that it is unlikely that the Directors will recommend a dividend in the early years following Admission. The Directors believe the Company should seek to generate capital growth for Shareholders but may recommend distributions at some future date, depending upon the generation of sustainable profits, when it becomes commercially prudent to do so.

### **24. Corporate Governance**

The Directors support the highest standards of corporate governance and intend to observe the requirements of the QCA Guidelines to the extent they consider appropriate in light of the Company's size, stage of development and resources. The QCA Guidelines bring a more formalised approach to corporate governance particularly in the areas of the laws and rules as to directors' duties and liabilities and shareholders' rights which apply to all Guernsey companies. The Company will appoint further Non-Executive Directors as this business develops and requires further non-executive support.

The Company has adopted and will operate a share dealing code governing the share dealings of the Directors and applicable employees with a view to ensuring compliance with Rule 21 of the AIM Rules.

The Board is responsible for the management of the business of the Company, setting the strategic direction of the Company and establishing the policies of the Company. It is its responsibility to oversee the financial position of the Company and monitor the business and affairs of the Company, on behalf of the Shareholders, to whom they are accountable. The primary duty of the Board is to act in the best interests of the Company at all times. The Board shall also address issues relating to internal control and the Company's approach to risk management.

Ian Watson and Jeremy Friedlander will sit on the audit committee and the remuneration committee, in respect of which they will hold specific meetings at least twice each year following Admission. The audit committee responsibilities will include ensuring the appropriate financial reporting procedures are properly maintained and reported on, and for meeting with the Company's auditors and reviewing their reports and accounts and the Company's internal controls. The remuneration committee responsibilities will include reviewing the performance of the executive Directors, setting their remuneration levels, determining the payment of bonuses and considering the grant of any share options to employees of the Group.

### **25. CREST**

CREST is a computerised paperless share transfer and settlement system which allows shares and other securities to be held in electronic rather than paper form and transferred otherwise than by written instrument. The Articles permit new Ordinary Shares to be issued and transferred in Uncertificated form in accordance with the CREST Regulations. The Existing Ordinary Shares are currently enabled for settlement through CREST. Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within CREST if Shareholders so wish. CREST is a voluntary system and Shareholders who wish to hold their shares in certified form will be able to do so.

### **26. Taxation**

General information regarding taxation is set out in paragraph 12 of Part VIII of this Document. These details are intended only as a general guide to the current tax position under UK and Guernsey taxation law. If an investor is in any doubt as to his tax position he should consult his own independent financial adviser immediately.

Investors subject to tax in other jurisdictions are strongly urged to contact their tax advisors about the tax consequences of holding Ordinary Shares.

### **27. Takeover Code**

The Takeover Code normally applies to a company whose shares are admitted to trading on AIM if its registered office is in the United Kingdom, the Channel Islands or the Isle of Man and if it is considered by the Takeover Panel to have its place of central management and control in one of these jurisdictions.



The Takeover Code will not apply to the Company on Admission as the place of central management and control of the Company is not considered to be in the United Kingdom, the Channel Islands or the Isle of Man. In order to seek to provide Shareholders with certain protections which would not be available as a result of this, the Articles provide as follows:

- Where any person acquires an interest in shares which (taken together with shares held or acquired by persons acting in concert with him) represent 30 per cent. or more of all the shares for the time being in issue, the Directors may serve upon that person a notice requiring him to make an offer in writing (the “Offer”), within 30 days of the date of such notice on the basis set out below to purchase all shares not owned by him for cash on terms that payment in full therefore will be made within 21 days of the Offer becoming or being declared unconditional in all respects.
- Where the Directors serve such a notice upon any person they may include a requirement that such person shall make an appropriate offer or proposal in writing to the holders of every class of securities convertible into, or of rights to subscribe for, share capital of the Company (whether such share capital is voting or non-voting) (a “Convertible Offer”).
- In addition to the offeror, the Directors may require, in their absolute discretion, each of the principal members of a group of persons acting in concert with him and who appear to be interested in any shares, in or convertible securities of the Company to make the Offer and/or the Convertible Offer.

If the Directors require the offeror (and any person(s) acting in concert with the offeror) to make the Offer (and, if relevant, a Convertible Offer) and the offeror (and such person(s) acting in concert with him) does not/do not comply with the request set out in the relevant notice within the time period specified in such notice then the Directors may at any time, by notice to the offeror (and the person(s) acting in concert with him), direct that:

- the offeror (and the person(s) acting in concert with him) is not entitled to vote at or attend, either personally or by proxy, a general meeting or a meeting of the holders of any class of shares of the Company held by him/them or to exercise any other right conferred by membership in relation to general meetings of the holders of any class of share of the Company; and/or
- any dividend or other money which would otherwise be payable to the offeror (or the person(s) acting in concert with him) shall (in whole or part) be retained by the Company without any liability to pay interest when the dividend or money is paid to the member; and/or
- no transfer of the Company shares held by the offeror (or the person(s) acting in concert with him) shall be registered.

Unless the Directors otherwise agree, any offer required by this provision must be in cash or be accompanied by a cash alternative at not less than the highest price paid by the offeror or any person acting in concert with it for shares or convertible securities of that class within the preceding 12 months. The Offer must also be conditional only on the offeror having received acceptances in respect of shares which, together with shares in concert with it holding shares carry more than 50 per cent. of the voting rights. In enforcing these provisions the Board shall make decisions at their absolute discretion.

The Shareholders may, by passing a special resolution in general meeting, determine that the takeover provisions set out above shall not apply to any transaction specified in such special resolution.

## **28. Related Party Transactions**

The Company has entered into the following arrangements which are or may be regarded as related party arrangements:

- a share for share exchange agreement between the Company, Obtala, VML and VMI dated 15 March 2012 pursuant to which the Company acquired the entire issued share capital of Greenhills in exchange for Ordinary Shares. Further details of this agreement are set out in paragraph 11.2(b) of Part VIII;

- a share for share exchange agreement between the Company, Obtala and MWI dated 15 March 2012 pursuant to which the Company acquired the entire issued share capital of Bushveld Resources in exchange for Ordinary Shares. Further details of this agreement are set out in paragraph 11.2(m) of Part VIII;
- the Relationship Agreement entered into between the Company, Obtala and Fox-Davies dated 20 March 2012 to govern the relationship between the Company and Obtala. Further details of this agreement are set out in paragraph 11.1(d) of Part VIII;
- the Lock-in Agreements entered into between the Company, Fox-Davies and each of Obtala, MWI, VML and VMI dated 20 March 2012 which provide certain restrictions on the rights of Obtala, MWI, VML and VMI to dispose of their Ordinary Shares. Further details of these agreements are set out in paragraph 11.1(b) of Part VIII;
- the service agreements between the Company and each of Fortune Mojapelo, Anthony Viljoen and Geoff Sproule dated 20 March 2012, further details of which are set out in paragraph 9.1 of Part VIII.

### **29. The Disclosure and Transparency Rules and Insider Dealing**

Following and subject to Admission the Company will be required to comply with certain parts of the Disclosure and Transparency Rules. In certain instances where the Disclosure and Transparency Rules apply differently to an overseas company, provision has been made in the Articles to apply the rules as if the Company was a company incorporated in the UK. For example the Articles provide that Shareholders must comply with the rules contained in DTR 5 of the Disclosure and Transparency Rules relating to disclosure of major shareholdings and other controlling voting rights in the Company as if it were a UK-incorporated company.

The insider dealing legislation set out in the UK Criminal Justice Act 1993, as well as provisions relating to market abuse, will apply to the Company and dealings in Ordinary Shares, alongside the parallel provisions of Guernsey law, to the extent that they are applicable.

### **30. Share Options**

Following Admission, it is the Board's intention to grant share options to certain Directors, employees and third parties. In aggregate, such options will not exceed 10 per cent. of the Enlarged Share Capital, and they will be awarded at the discretion of the Board.

Further details of the terms on which such options are intended to be granted are contained at paragraph 5 of Part VIII.

### **31. Risk Factors**

Please refer to Part V of this document for further information.

### **32. Additional Information**

Your attention is drawn to the information in the rest of this document. In particular you are advised to carefully consider the risk factors in Part V of this Admission document.

## PART II

### INFORMATION ON THE BUSHVELD IRON ORE PROJECT

#### 1. Highlights

- Prospecting Right 95 and Prospecting Right 438 together cover 7,409 ha.
- 17 holes drilled during 2010 and 2011 within Prospecting Right 95.
- JORC-compliant Mineral Resource of 260 Mt Indicated and 373 Mt Inferred on two Ti-magnetite layers.
- Exploration programme designed to drill up to 10,000 m to increase and upgrade Mineral Resource.
- Scoping studies to be completed over the next 18 months.
- The Company believes that infrastructure on the Bushveld Complex has the potential to facilitate rapid development.

#### 2. History and Background

Bushveld Resources is the intermediate holding company of a group of subsidiaries which comprise the Bushveld Iron Ore Project.

Bushveld Resources owns 64 per cent. of the issued share capital of Pamish 39, 68.5 per cent. of the issued share capital of Amaraka, and the entire issued share capital of Frontier Platinum. Pamish 39 has acquired Prospecting Right 95. Amaraka has agreed to acquire Prospecting Right 438 from AMM once that prospecting right has been renewed.

Details of the transactions which led to the above ownership are as follows:

<i>Timeline</i>	<i>Details</i>
2008	On or about 18 June 2008, Izingwe, Bushveld Resources and Pamish 39 signed a Strategic Association Agreement, providing for Bushveld Resources to acquire a 64 per cent. equity interest in Prospecting Right 95 through a special purpose vehicle, Pamish 39. Pursuant to that agreement, Izingwe agreed to transfer Prospecting Right 95 to Pamish 39.
2009	On 27 July 2009, consent in terms of Section 11 of the MPRDA was granted by the Minister to transfer Prospecting Right 95 to Pamish 39.
2010	On 28 December 2010, AMM, Pamish 63 and Amaraka signed a Strategic Association Agreement providing for a new company (Amaraka) to be incorporated and for Prospecting Right 438 to be transferred to Amaraka.
2011	On 3 March 2011, an application to renew Prospecting Right 438 (currently held by AMM and which expired on 6 March 2011) was made to the DMR.
2011	On 13 May 2011, AMM, Pamish 63, Amaraka and Bushveld Resources signed a Strategic Investment Agreement providing for Bushveld Resources to be issued with a 55 per cent. equity interest in Amaraka.
2011	In September 2011, Pamish 39 applied in terms of Section 102 of the MPRDA to extend its area under prospecting to include two additional farms Schoonoord 786 LR and Bellevue 808 LR in PR95.
2011	On 30 May 2011, an application by Izingwe and Pamish 39 to renew Prospecting Right 95 was granted by the DMR.
2012	On 13 March 2012, Izingwe, Bushveld Resources and Pamish 39 signed a Revival and Addendum Agreement relating to the Strategic Association Agreement dated 18 June 2008.

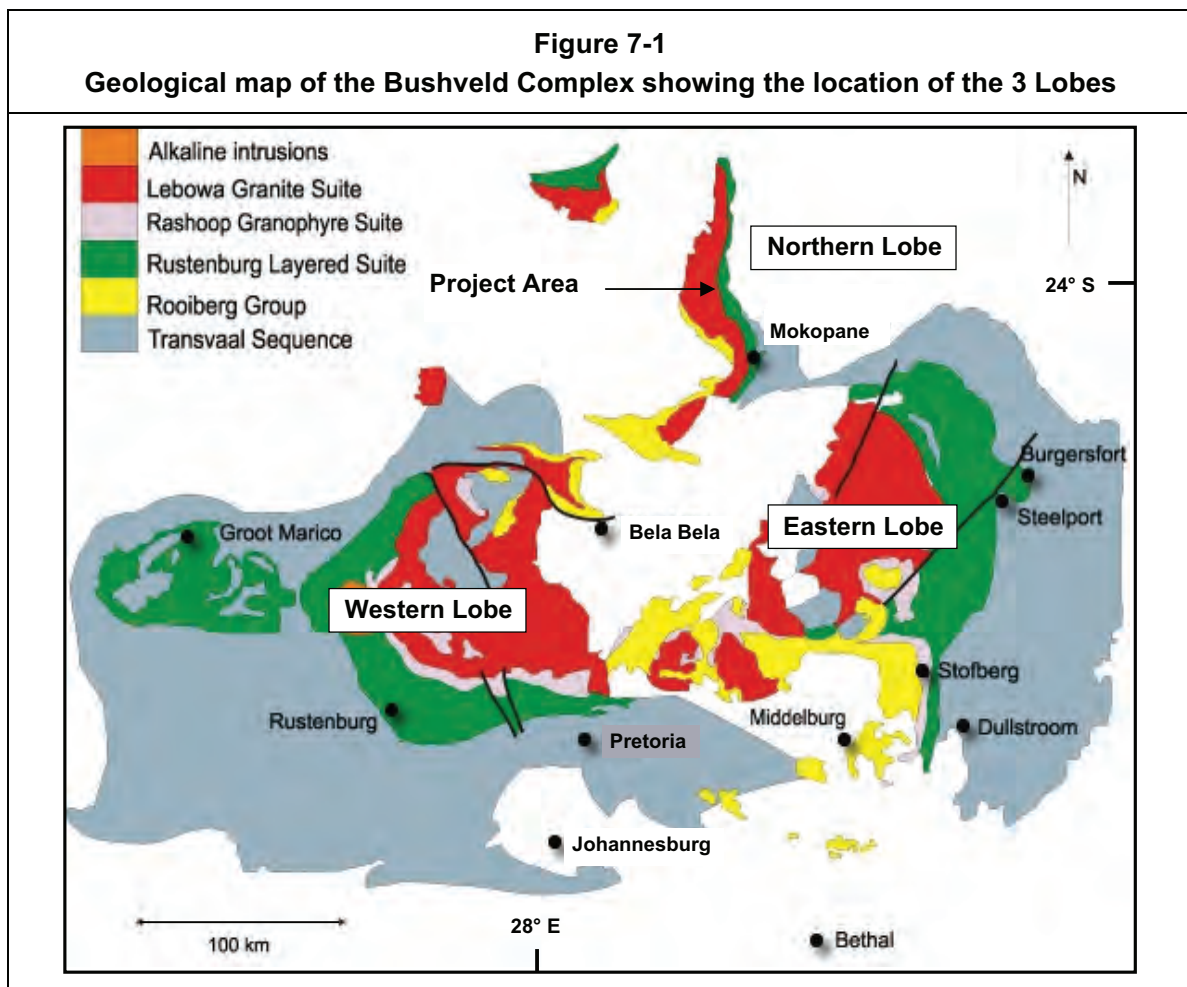
- 2012 On 15 March 2012, Pamish 63 and Bushveld Resources signed and completed a Sale of Shares and Claims Agreement relating to Pamish 63's holding of shares in the capital of Amaraka.
- 2012 On 20 March 2012, Izingwe and Pamish 39 signed a notarial deed of cession transferring Prospecting Right 95 to Pamish 39.
- 2012 On 20 March 2012, Pamish 39 and Izingwe applied to register Pamish 39 as the holder of Prospecting Right 95 at the MPTR0.

**3. The Bushveld Iron Ore Project**

The Bushveld Iron Ore Project is situated approximately 65 km west of Polokwane and 45 km north-northwest of Mokopane in the Mokopane District, Limpopo Province, South Africa.

The Bushveld Iron Ore Project is located in the central portion of the Northern Lobe of the Bushveld Complex covers a group of four adjacent farms namely Vogelstruisfontein 765LR, Malokong 784LR, Vliegekraal 783LR and Vriesland 781LR.

**4. Location of the Project**



Source: Figure 7-1, CPR on the Bushveld Iron Ore Project.

## 5. Licences and Rights

The following Prospecting Rights (PR) were granted in terms of Section 16 of the MPRDA:

<i>PR Number</i>	<i>Current Holding Company</i>	<i>Bushveld Interest (%)</i>	<i>Minerals</i>	<i>Status</i>	<i>Area (ha)</i>
95PR	Pamish 39	64% (held through Pamish 39)	Platinum Group Metals, Cobalt, Copper, Nickel, Chrome, Iron Ore, Vanadium, Titanium and all minerals that may be found in intimate association with the latter	Right renewed on 30/05/2011 for 3 years	5545.5600
438PR	Afro Multi Minerals (Pty) Ltd	68.5% (to be held through Amaraka)	Copper Ore, Cobalt, Nickel, Iron Ore, Titanium Ore and Platinum Group Metals	Renewal Application submitted; Section 11 Application to be submitted upon approval of renewal	1863.9378

## 6. Prospecting Right 95

The PR covers 3 farms being Vogelstruisfontein 765 LR, Vriesland 781 LR and Vliegekraal 783 LR.

Prospecting Right 95 was initially granted for a period of 5 years to Izingwe on 9 November 2005 and transferred to Pamish 39 in terms of Section 11 of the MPRDA. The approval of a Section 11 transfer was granted on 27 July 2009 and an application for renewal for a further three year period was accepted on 30 May 2011. The renewal was executed on 16 March 2012 and Prospecting Right 95 will expire three years from that date. Pamish 39 applied to the MPTRD to be registered as the holder of Prospecting Right 95 on 20 March 2012. The registration is an administrative process that is expected to be completed in around 30 business days.

In September 2011, Pamish 39 applied to extend Prospecting Right 95 to include two further farms, Schoonoordt 786 LR and Bellevue 808 LR. This application is currently pending.

## 7. Prospecting Right 438 (Under renewal application)

PR 438 is currently held by AMM and covers one farm being Malokong 784 LR. PR 438 is the subject of a renewal application that is currently pending at the time of Admission. The management believe that PR 438 might not form a material part of the future exploration and development strategy of the Group.

PR 438 was granted on 7 March 2007 for an initial period of 4 years to AMM. On 3 March 2011, AMM submitted a renewal application in terms of Section 18 for a further period of 3 years which is currently pending with the DMR. A Section 11 application to transfer the Prospecting Right to Amaraka is planned but can only be submitted to the DMR after the renewal application has been granted.

## 8. Historical work

The project area was covered by a regional geochemical soil sampling and geological mapping programme by the Council for Geoscience (CGS). The latter work was published in 1985 at 1:250,000 scale as the 2328 Pietersburg Geological Series map. The soil sampling was conducted at 1 km intervals and the samples were analysed by XRF and ICP-MS for over 40 elements including Fe<sub>2</sub>O<sub>3</sub>, V, TiO<sub>2</sub>, Cu and Ni. Significant vanadium and titanium anomalies occur and generally coincide with areas mapped as Upper Zone of the Bushveld Complex which contains numerous semi-massive and massive Ti-magnetite layers interlayered with Ti-magnetite-bearing gabbroic rocks.

A regional aeromagnetic and radiometric survey was conducted in the 1990s and processed by the CGS. The data shows prominent northerly-trending magnetic zones which have been correlated with the two most magnetite-rich stratigraphic units which in turn host groups of individual Ti-magnetite layers namely the Main Magnetite Group and the P-Q Magnetite Group.

A stratigraphic borehole BV-1 was drilled by the CGS in 1991 on the farm Bellevue some 2 km south-west of the project area. The 2,950 m deep hole covered the entire Upper Zone stratigraphy and intersected 32 discrete layers of Ti-magnetite or Ti-magnetite-rich rock (>20 per cent. opaque minerals) ranging in thickness between 7 cm and 13 m (Ashwal et al., 2005). Most prominent are the uppermost semi-massive Ti-magnetite layer (Q layer) which has a thickness of 13 m; and an approximately 8 m thick vanadium-rich layer with variable Ti-magnetite content. The latter is some 175 m above the base of the Upper Zone and can be correlated with the Main Magnetite Layer (MML). The occurrence of the two most prominent Ti-magnetite layers at borehole depths of approximately 600 m and 1,400 m documents the remarkable spatial continuity of these layers.

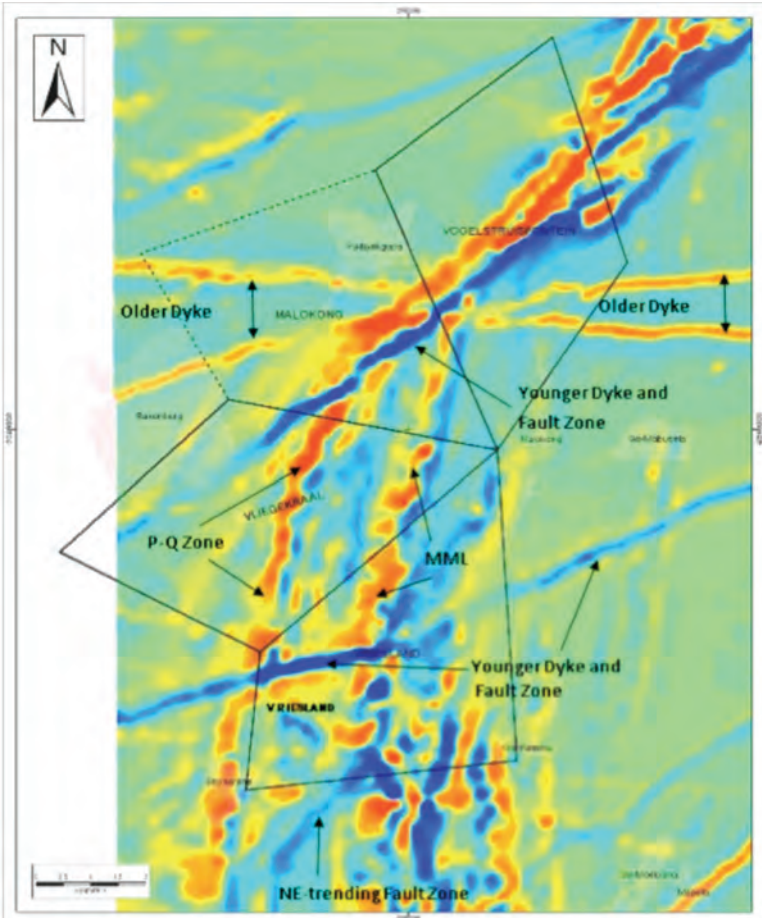
**9. Drilling Programme in 2010 and 2011**

Based on regional aeromagnetic and geochemical data interpretation, used to identify the project targets, the Company’s geologists have identified potential strike extensions of the MML and P-Q Zone mineralisation on 438PR. A significant strike extension of the P-Q Zone by several kilometres to the west and south of the current license area has also been postulated by the Company’s geologists. This potential would need to be evaluated by securing the Prospecting Rights to these contiguous properties, followed by further drilling before any addition to the stated Mineral Resource could be contemplated.

**10. Future Exploration Targets**

Based on regional aeromagnetic and geochemical data interpretation, used to identify the project targets, the Company’s geologists have identified potential strike extensions of the MML and P-Q Zone mineralisation on 438PR. A significant strike extension of the P-Q Zone by several kilometres to the west and south of the current license area has also been postulated by the Company’s geologists. This potential would need to be evaluated by securing the Prospecting Rights to these contiguous properties, followed by further drilling before any addition to the stated Mineral Resource could be contemplated.

Note: P-Q Zone and MML have a strong positive (red coloured) magnetic signature.



Source: the Company.

## 11. Future Strategy

The Company's vision is to establish a large scale mining operation producing primarily Ti-magnetite and realising value from the several other minerals that form a part of its mineralisation. The Company intends to establish a low cost mining operation producing in excess of 10 million tonnes of Ti-magnetite concentrate per annum subject to feasibility studies. The immediate strategy is four-fold:

1. To expand the current Mineral Resource by acquiring additional ground and drilling along the identified strike direction of the mineralisation;
2. To upgrade the resource into a Indicated and Measured Mineral Resource Category;
3. To undertake a pre-feasibility study, including a detailed metallurgical study and infrastructure scoping study of the project; and
4. To establish partnerships with potential strategic partners in the areas of product off-take, infrastructure development and beneficiation.

## 12. Mineral Resource

### *Main Magnetite Layer (MML)*

Mineral Resource estimations were undertaken on the MML down to a vertical depth of 100 m, at a 40 per cent. Fe<sub>2</sub>O<sub>3</sub> cut-off (Table 1 2). The Mineral Resource extends over a strike length of 5.5 km, is open-ended to the north and south and has an average true thickness of approximately 8.4 m.

**Table 0-1**

### *MML In-situ inferred Mineral Resources, <100 m at 40% Fe<sub>2</sub>O<sub>3</sub> cut-off*

<i>Cut Off Fe<sub>2</sub>O<sub>3</sub>%</i>	<i>Million Tonnes</i>	<i>SG</i>	<i>Fe %</i>	<i>Fe<sub>2</sub>O<sub>3</sub> %</i>	<i>P<sub>2</sub>O<sub>5</sub> %</i>	<i>TiO<sub>2</sub> %</i>	<i>V<sub>2</sub>O<sub>5</sub> %</i>	<i>SiO<sub>2</sub> %</i>	<i>Al<sub>2</sub>O<sub>3</sub> %</i>
40	66.21	3.83	37.1	53.1	0.01	9.2	1.24	17.9	11.1

### *Upper Magnetite Layer (P-Q Zone)*

The P-Q Zone is divided into a northern and southern block due to a structural fault and the two domains were modelled separately. Mineral resource estimations were undertaken on the P-Q Zone North, down to vertical depths of 200 m and 400 m, at a 35 per cent. Fe<sub>2</sub>O<sub>3</sub> cut-off (Table 1 3 and Table 1 4). The mineralisation extends over 4 km along strike, is open-ended to the north and south and has average true thicknesses of approximately 40 m in the north and 50 m in the south.

**Table 0-2**

### *Combined P-Q Zone In-situ Indicated Mineral Resources, <200 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off*

<i>Cut Off Fe<sub>2</sub>O<sub>3</sub>%</i>	<i>Million Tonnes</i>	<i>SG</i>	<i>Fe %</i>	<i>Fe<sub>2</sub>O<sub>3</sub> %</i>	<i>P<sub>2</sub>O<sub>5</sub> %</i>	<i>TiO<sub>2</sub> %</i>	<i>V<sub>2</sub>O<sub>5</sub> %</i>	<i>SiO<sub>2</sub> %</i>	<i>Al<sub>2</sub>O<sub>3</sub> %</i>
35	260.20	3.70	32.4	46.3	0.05	11.3	0.18	24.4	10.2

**Table 0-3**

### *Combined P-Q Zone In-situ Inferred Mineral Resources, < 400 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off*

<i>Cut Off Fe<sub>2</sub>O<sub>3</sub>%</i>	<i>Million Tonnes</i>	<i>SG</i>	<i>Fe %</i>	<i>Fe<sub>2</sub>O<sub>3</sub> %</i>	<i>P<sub>2</sub>O<sub>5</sub> %</i>	<i>TiO<sub>2</sub> %</i>	<i>V<sub>2</sub>O<sub>5</sub> %</i>	<i>SiO<sub>2</sub> %</i>	<i>Al<sub>2</sub>O<sub>3</sub> %</i>
35	307.23	3.75	31.9	45.7	0.05	11.5	0.19	23.4	10.2

The exploration programme has thus shown that the Project area contains approximately 260 million tonnes of VTM-rich material with an Fe<sub>2</sub>O<sub>3</sub> content of 46.3 per cent. in the Indicated category and a further 373 million tonnes in the Inferred category with Fe<sub>2</sub>O<sub>3</sub> contents varying between 45.7 per cent. in the P-Q Zone and 53.1 per cent. in the MML down to vertical depths of up to 100 metres and 400 metres, respectively.

## PART III

### INFORMATION ON THE GREENHILLS MOKOPANE TIN PROJECT

#### 1. Highlights

- New order prospecting rights over 13,422 ha
- Five targets identified with potential for a significant tin mineral resource
- Diamond drilling programme comprising 53 boreholes and a total of 1,720 metres completed on one of the five known prospects – the Groenfontein project
- Competent Person Report completed by MSA confirming a JORC compliant Mineral Resource estimate on the Groenfontein project, one of five targets in the licence area
- A Measured and Indicated Mineral Resource of 3,095,000 tonnes, containing 4,792 tonnes of tin (at 0.1 per cent. Sn cut-off), at an average grade of 0.15 per cent. Sn
- A further 898,000 tonnes containing 1,167 tonnes of tin, is estimated in the Inferred Mineral Resource category, at an average grade of 0.13 per cent. Sn
- Additional drilling is planned to confirm lateral extensions of the mineralisation and extend the resource

#### 2. History and background

Greenhills is the holding company of a group of subsidiaries which comprise the Mokopane Tin Project.

Greenhills owns the entire issued share capital of Mokopane, which in turn owns 74 per cent. of the issued share capital of Renetype. Renetype has acquired Prospecting Right 2205 and is the applicant for Prospecting Right 2371.

Details of the transactions which led to the above ownership are as follows:

<i>Timeline</i>	<i>Details</i>
2009	On 23 June 2009, Renetype applied for Prospecting Right 2371. As at the date of this Document this prospecting right has not yet been granted.
2010	On 9 March 2010, VMI, Cannosia, Awevest and Renetype entered into a Shareholders' Agreement.
2010	On 14 July 2010, Prospecting Right 2205 was granted to VMI.
2011	On 23 May 2011, VMI and its 74 per cent. subsidiary Renetype signed an agreement to sell Prospecting Right 2205 to Renetype for nominal consideration of SAR 1.
2011	On 25 July 2011, Mokopane agreed to acquire the shares in the capital of Renetype held by VMI for a consideration of SAR 1 million, being 74 per cent. of the entire issued share capital of Renetype and the shares were issued to Mokopane on 28 July 2011.
2011	The Section 11 approval was requested in respect of the transfer of Prospecting Right 2205 and was granted by the Minister on 1 December 2011.
2012	On 12 March 2012, VMI and Renetype signed a notarial deed of cession transferring Prospecting Right 2205 to Renetype.
2012	On 16 March 2012, VMI and Renetype applied to register Renetype as the holder of Prospecting Right 2205 at the MPTRO.

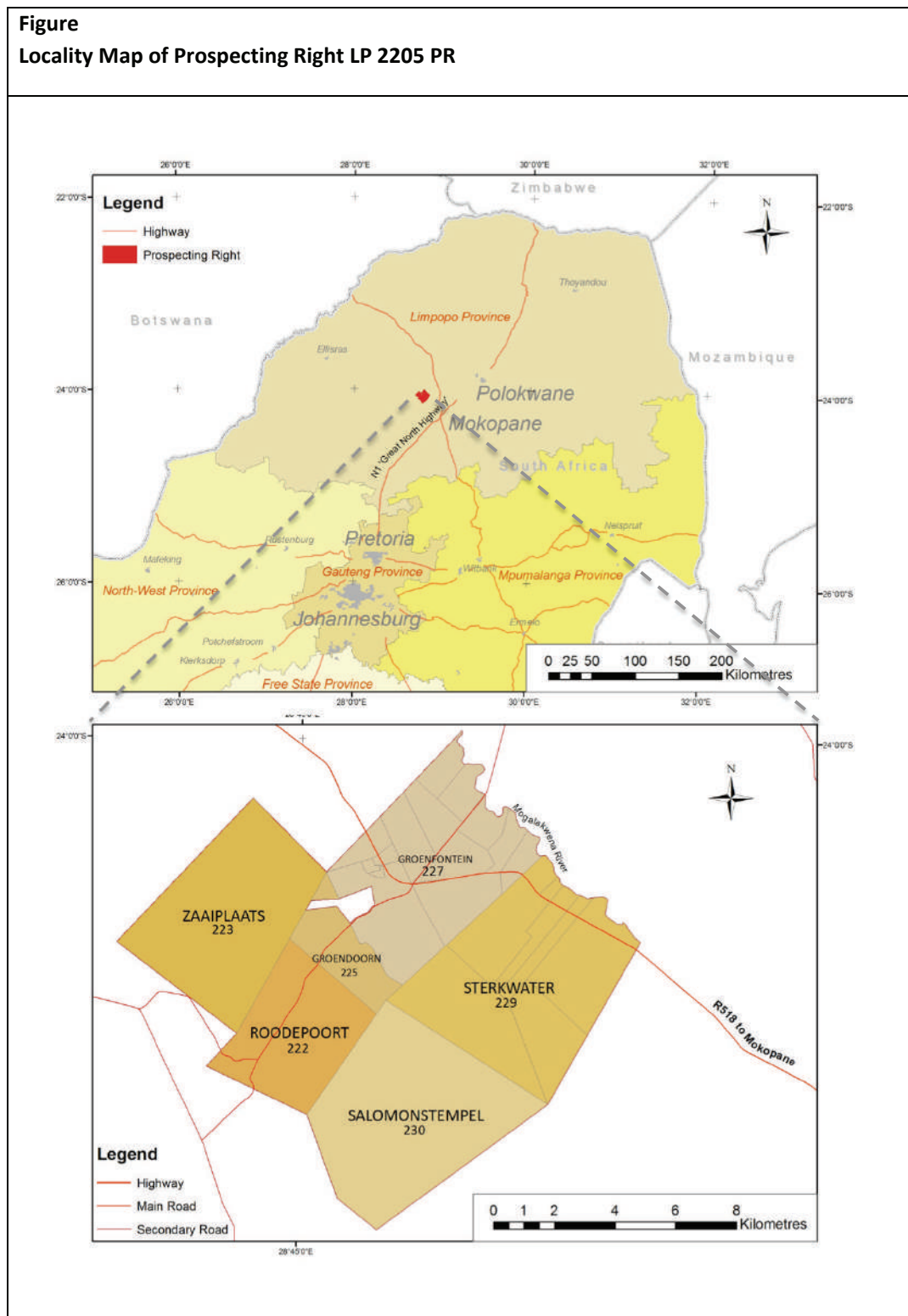


2012 On 15 March 2012, VMI, Renetype, Mokopane and Cannosia and on 20 March 2012 Mokopane and Awevest entered into deeds of adherence granting Mokopane rights under the Shareholders Agreement dated 9 March 2010.

### **3. The Mokopane Tin Project**

The Mokopane Tin Project is a property comprised of six different farms on the northern limb of the Bushveld Complex in South Africa. The Mokopane Tin Project is approximately 13,422 hectares and can be reached in approximately three and a half hours from Johannesburg. The Mokopane Tin Project is hilly with elevation ranging from 1,565 m in the southern ridges to 990 m at the northern tip of the Mokopane Tin Project.

#### 4. Map



Source: Figure 4-1 CPR on the Mokopane Tin Project.

#### 5. Historical Work

Cassiterite was discovered in 1905 by prospectors on the farms Roodepoort 222KR, Groenfontein 227 KR and Zaaiplaats 223KR. This led to the establishment of the Groenfontein Tin Mine and the Zaaiplaats Tin Mining Company. Subsequently, further tin deposits were discovered on adjacent farms, including Salomon's Temple 230KR. The Zaaiplaats Tin Mining Company produced cassiterite concentrate and tin metal continuously from its inception to its closure in 1989.

Mineral resource drilling of the disseminated cassiterite deposit on the farm Groenfontein 227KR was undertaken during the 1970s. This work is the subject of current re-drilling, to try to establish a JORC compliant mineral resource.

In 1962 a targeting exercise was conducted by Transvaal Consolidated Lands which identified the Roodepoort 222KR and Groenfontein 227KR as targets for further exploration (Kriek, 1962). The major conclusion of this work was that an area of disseminated cassiterite identified in an outcrop along the boundary between the farms Groenfontein 227KR and Roodepoort 222KR was an attractive target.

A wide spaced percussion drilling programme comprising 12 boreholes was conducted in 1963 over this disseminated cassiterite target. The details of the sampling and assay methodology are not available. However, the programme established an anomalous zone of tin mineralisation which was demonstrated to continue down dip beneath the Rashoop Granophyre. This programme was subsequently followed up by surface geochemical sampling in 1976, to establish whether further areas of shallow disseminated tin mineralisation occur.

In 1976, a detailed systematic surface sampling programme was carried out over the southern part of Groenfontein 227KR and what is now the farm Groendoorn 225KR. The entire area was sampled except the areas covered by alluvium and tailings from the Zaiplaats Tin Mine. Granite chip samples and soil/alluvial/elluvial samples were collected, initially on a 50m by 50m grid and later on a 10m by 5m grid on some of the more interesting areas.

The 50m by 50m grid sampling results only confirmed known cassiterite occurrences which had already been identified from mapping of the disseminated tin mineralisation on surface. These were associated with disseminated tin mineralisation in the Bobbejaankop Granite, which is an extension of the mineralisation on the farm Zaiplaats 223KR, and with the disseminated mineralisation within the Lease Granite on the farm Roodepoort 222KR (including Groendoorn 225KR). The results of the geochemical sampling programme prompted the planning and execution of a phased drilling programme during 1978, to further investigate the disseminated tin mineralisation in the Lease Granite.

## 6. Historical Drilling and Sampling

<i>Phase Hole Nos.</i>	<i>Objective</i>	<i>Number of Holes</i>	<i>Total Metres</i>	<i>Average Hole Depth (m)</i>	<i>Drilling Type</i>	<i>Year</i>
1 RDP 1-12	To investigate outcropping disseminated Sn mineralisation on the farm Groendoorn 225KR	12	1400.91	116.74	Percussion/ Core	1963
2* RDP 13-53	To investigate the down dip extension of the tabular tin mineralisation identified in Phase 1	40	2356.36	58.91	Percussion/ Core	1978
3 RDP 54-67	To investigate the down dip extension of the tabular tin mineralisation identified in Phase 2	14	2007.08	143.36	Percussion/ Core	1978
4 RDP 68-97	To confirm the directional trend of mineralisation	30	1131.76	37.73	Percussion	1978
5** RDP 98-213	To develop a "reserve" in the shallow disseminated Sn mineralisation	107	1396.00	13.05	Percussion	1978
<b>Total</b>		<b>203</b>	<b>8292.11</b>	<b>40.85</b>		

\* One hole not drilled, \*\*9 holes not drilled.

The drilling data gathered during the drill programmes in 1963 and 1978 has been used by Greenhills to formulate an indicative mineral resource. It should be noted that this resource does not comply with JORC standards, since none of the QAQC, assay, or procedural documentation is available for verification. The indicative resource which Greenhills prepared was compiled from scanned plans and sections compiled from the original drilling. Nevertheless, the indicative mineral resource which has been produced is the basis for recent 2011 exploration work.

## **7. 2011 Drilling Programme**

The exploration programme entailed the drilling and sampling of 53 boreholes (22 twinned with historic boreholes) during 2011 on the Groenfontein 227 KR farm. The drillcore from the boreholes was analysed by Set Point Laboratories in Johannesburg. Analytical data obtained from the 22 twinned boreholes were compared to the historical borehole assay data in order to justify the incorporation of the historical data into the Mineral Resource quantification exercise. Twinning of boreholes followed by the application of comparative and correlative statistics by Independent Resource Estimations (“**IRES**”) determined that the old data is “useable”. Statistical analysis between the previous drilling results and the 22 twin boreholes from the current programme indicate a very good correlation.

The geological model and Mineral Resource estimate compiled by IRES includes the historical data together with drill information and assay data from the current exploration programme. The model and Mineral Resource estimate have been reviewed by MSA and in MSA’s stated opinion, they reflect a fair representation of the project.

The current exploration programme was focused on an area where extensive mining activity has taken place in the past. Much of this previous mining was focused on the extraction of high-grade pipe-like ore bodies, and only limited mining of disseminated ore was carried out. The current exploration programme targets the disseminated tin mineralisation occurring in the Lease Granite. It was proposed that a cut-off grade of 0.1 per cent. Sn would be used and drilling was therefore focused within a well-defined targeted area identified from historical drilling work.

## **8. Results of the 2011 Drilling Programme**

The results of the 2011 drilling programme confirmed the results of the historical drilling data:

- Low-grade disseminated tin mineralisation is found in the Lease Granite. The zone of mineralisation crops out at surface and extends NE-SW along the strike of the tabular Lease Granite for over 500m. This forms the bulk of mineralisation identified.
- A second zone of disseminated mineralisation is also found in the Lease Granite immediately below the contact with a pegmatite which is a discontinuous feature in the roof of the Lease Granite close to the contact with the overlying Cap rock. This zone of mineralisation is more irregular than the larger disseminated body and does not generally crop out at surface. It has been locally mined in the past.
- Local high-grade pipe-like bodies exist within and below the lower-grade mineralised zones. Although high-grade, they are not voluminous and do not make up a significant resource.
- Locally, drilling has intersected high-grade mineralisation with grades reaching up to 16.86 per cent. Sn over 1 m (a probable pipe), 0.46 per cent. Sn over 11 m, and 0.41 per cent. Sn over 16 m.

A number of cross-sections depicting geology and grade distribution have been constructed along NE-SW lines perpendicular to the strike of the orebody (Appendix 1 of the CPR). On each cross-section, grades have been contoured at 100 ppm, 500 ppm and 1,000 ppm levels to add geological constraints to the resource calculation.

## **9. Future Exploration Targets**

The Group will seek to drill three further targets that have been identified in the project area covered by Prospecting Right 2205 and one that has been identified in the area covered by Prospecting Right 2371 (under application). These are:

- the Zaaiplaats Target – historically mined for tin in both the Bobbejaankop and Lease Granites, this target was partly covered by the Rand Mines geochemical sampling programme;
- the Salomon’s Tempel Target – historically mined on a limited scale for tin in the Lease Granite;
- the Appingendam Target – vein systems historically mined for tin, molybdenum and rare earth elements in the Bobbejaankop and Lease Granites; and

- the Union Shale Target – historically mined on a limited scale for tin from breccia bodies and structures associated with the Union Tin Shale unit in the overlying felsites of the Rooiberg Group.

Higher-grade parts of each of these targets have been partially mined historically on various scales for tin and other elements. Apart from a portion of the Zaaipiaats Target (covered by the Rand Mines programme), none of these targets have been previously investigated for lower-grade styles of mineralisation. They are therefore key targets for further exploration and expansion of the tin resource in the project area.

#### 10. Prospecting Right 2205 and Details of the Properties

<i>Asset</i>	<i>Holder</i>	<i>Status</i>	<i>Licence Expiry Date</i>	<i>Licence Area(ha)</i>	<i>Group Interest</i>
2205PR	Renotype (Pty) Ltd	Prospecting	13 July 2015	13,422	74%

Prospecting Right 2205 comprises six farms being Groendoorn 225 KR (excluding Portion 05), Groenfontein 227 KR (excluding Portion 25), Sterkwater 229 KR, Salomon's Temple 230 KR, Roodepoort 222 KR and Zaaipiaats 223 KR. The Property totals 13,421.7362 hectares.

#### 11. Prospecting Right 2371 (Under Application)

Renotype applied for the grant of Prospecting Right 2371 on 23 June 2009 which is currently being processed by the DMR. The Group does not expect this to be granted prior to Admission.

#### 12. Resource Estimation (Groenfontein 227KR)

In the Lease Granite at Groenfontein 227KR, an Indicated and Measured Mineral Resource of 4,792 tonnes (at 0.1 per cent. Sn cut-off), of tin has been defined, with a further 1,203 tonnes of tin in the Inferred category.

<i>Confidence Category</i>	<i>Deposit</i>	<i>Gross</i>			<i>Net Attributable*</i>		
		<i>Tonnes (Mt)</i>	<i>Sn Grade (%)</i>	<i>Contained Metal (t)</i>	<i>Tonnes (Mt)</i>	<i>Sn Grade (%)</i>	<i>Contained Metal (t)</i>
Measured	2205PR	1.18	0.179	2,107	0.87	0.179	1,559
Indicated	2205PR	1.92	0.140	2,685	1.42	0.140	1,987
Inferred	2205PR	0.90	0.134	1,203	0.67	0.134	890
<b>Mineral Resource Totals</b>							
<b>Measured &amp; Indicated</b>		<b>3.10</b>	<b>0.155</b>	<b>4,792</b>	<b>2.29</b>	<b>0.15</b>	<b>3,546</b>
<b>Inferred</b>		<b>0.90</b>	<b>0.134</b>	<b>1,203</b>	<b>0.67</b>	<b>0.13</b>	<b>890</b>

\*Net attributable is based on the Group's economic interest of 74 per cent. in the Project.

Source: Table 12-7, page 44, of CPR on the Mokopane Tin Project.

This Mineral Resource represents only one of five targets identified, and may be significantly increased through further exploration on these targets.

## PART IV: SECTION A

### BACKGROUND ON VANADIUM TITANO- MAGNETITES (“VTMs”)

#### 1. VTM's

Vanadium titano-magnetite (“VTMs”) is an iron oxide ( $\text{Fe}_3\text{O}_4$ ) that contains vanadium (“V”) and titanium (“Ti”). The exact VTM composition varies depending on each deposit and the region in which it is found. With such mineral, the vanadium pentoxide (“ $\text{V}_2\text{O}_5$ ”) content is usually less than 2 per cent. and the titanium oxide (“ $\text{TiO}_2$ ”) content is usually less than 16 per cent. If the  $\text{V}_2\text{O}_5$  content exceeds 1.5 per cent., it can be used to produce  $\text{V}_2\text{O}_5$  directly.

Major deposits of this type are found primarily in China, Russia, New Zealand and South Africa. These types of deposits are used to produce iron concentrates containing vanadium and titanium. The Ti-magnetite concentrates can be used in the production of iron metal and the vanadium can be recovered in a separate process and be further refined into either vanadium pentoxide (“ $\text{V}_2\text{O}_5$ ”) for chemical applications or into ferrovanadium (“FeV”) for high strength steels. The titanium-rich slag can potentially be upgraded in a separate process to produce downstream titanium products such as pigment and sponge titanium. VTMs can only be processed by specialised furnaces as the vanadium and titanium content is too high for use in conventional steel-making operations. Titano-magnetite concentrate can be traded by way of an off-take agreement where price will be determined in individual negotiations.

#### 2. Iron Ore Background

Iron is the fourth most abundant mineral in the earth's crust. Iron ore can be characterised by the amount of iron content with high grade iron ore having at least 60 per cent. ferrous content while low grade iron ore contains 25 per cent. to 60 per cent. ferrous content. Higher iron content is more valuable in the steelmaking process. The ferrous content of the rock determines its type being hematite, magnetite or taconite.

Hematite (“ $\text{Fe}_2\text{O}_3$ ”) and magnetite (“ $\text{Fe}_3\text{O}_4$ ”) are the most commonly mined iron oxide. Hematite generally forms high grade deposits, >60 per cent. Fe, and magnetite lower grade deposits, <30 per cent. Fe. Hematite deposits are generally less compact and therefore more easily excavated, requiring less processing in order to sell as an economic product. In comparison, magnetite deposits require a lengthier and more expensive separation and beneficiation process, generally involving crushing, screening and magnetic separation. This disparity in mining requirements means hematite ores are often referred to as direct shipping ores (“DSO”) because they can be almost immediately transported to customers after excavation. Whilst magnetite processing is more time-consuming and cost intensive, it typically results in a product with fewer impurities. The differences in the ores also impact the properties of the final shipped product. Hematite deposits typically produce lump and fines after crushing and screening while the additional fine-milling of magnetite decreases the grain size and gives a pellet feed or concentrate product.

Mining iron ore is a high volume, low margin business model, as the value of iron is significantly lower than other metals. Operational costs lie not just in the mining out of the ground, but in infrastructure, transportation of the iron ore to market and the disposal of the unwanted by-products. Therefore the value of different iron ores is determined by infrastructure and freight costs, iron content and chemical impurities and most importantly by pyrometallurgical processing requirements. Location and transportation infrastructure is also of critical importance because free on board (“FOB”) contracts involve the mining company covering the cost of transporting the product to the shipping station and storing and loading of the product before shipping.

Due to the highly capital intensive nature of the infrastructure requirements, iron ore production is concentrated in the hands of a few major players- namely Vale, Rio Tinto and BHP Billiton. These companies control 90 per cent. of the known reserves of low cost, high grade iron ore. The dominant iron ore producing countries are Australia, Brazil, China and India. These are expected to remain the top iron ore producing countries until at least 2015.

Pure iron is a soft metal and has always traditionally been hardened by impurities such as carbon during smelting. Crude iron metal is produced in blast furnaces, where ore is reduced by coke to cast iron, with a high carbon content; further refinement with oxygen in order to reduce the carbon content produces steel. Currently over 98 per cent. of iron ore is used in the steel industry. Hence, iron ore market dynamics are dominated by steel production, in particular China's output, more so than other raw materials used in steel production which often also have significant additional end-uses.

Iron ore's purity will have a material effect on the marketability of the ore to steelmakers. Extraneous materials make iron ore more difficult to use in the production of pig iron. The following items are considered materials that will impair the value of the iron ore:

- Silica – This is always found in iron ore and most of it is removed during the smelting process.
- Phosphorous – The greater the proportion of phosphorous, the harder the iron becomes and the more it can be hardened by hammering. However, the greater the proportion of phosphorous, the more brittle the iron becomes in cold temperatures. Too much phosphorous makes the iron unusable.
- Aluminium – high aluminium content can thicken the furnace's slag. This slows down the steel charge. In extreme cases, it could lead to a frozen furnace.
- Sulfur – This can be removed from iron ore by calcining (a thermal process in which a volatile element is removed). If it is not removed, the iron becomes brittle at high temperatures, which could prevent the hot iron from being worked.

Steel companies accept iron ore products with impurities, and the type and scale of impurity is generally reflected in the negotiated selling price for the iron ore. Therefore, if the iron ore contains a relatively large amount of extraneous materials the saleable price of the ore will be marked down to accommodate the processing costs attached to the impurities.

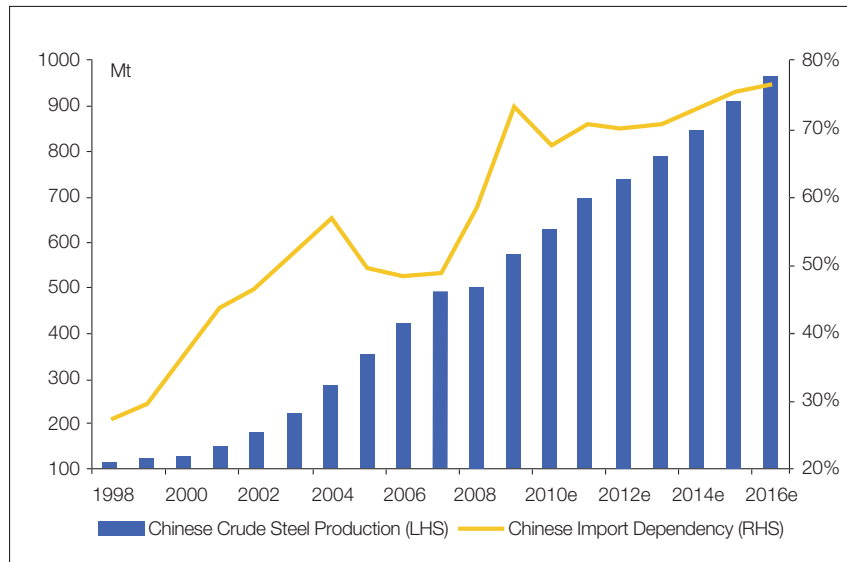
### **3. Iron Ore Demand**

The Asian dominance in the iron ore seaborne market as a region is entrenched because of the strength of its steel industry. China is now the leading market force, having overtaken Japanese crude steel output in 1997. Japan remains the world's second largest steelmaker. As its steel output grew, China initially retained its self-sufficiency in iron ore, but despite recording persistent increases in run-of-mine output in iron ore production since 2002, its dependency on iron ore imports has consistently risen since that year.

This trend now means that, despite being one of the world's top iron ore producers, China is also now the largest importer, importing two thirds of global seaborne iron ore in 2010. Figure 1 on page 46 demonstrates how China's iron import dependency has developed alongside crude steel output. China's growing position in the steel-making market has resulted in iron ore emerging as one of the most sensitive indicators of China's social and economic transformation and the iron ore pricing structure has now evolved into one reflecting spot prices prevailing at key delivery points in China, rather than annual contract prices determined by Japanese steel makers.

Iron ore is priced in U.S. dollars per dry metric tonne unit of iron ("dmtu"), where each dmtu consists of one per cent. iron content. A unit is one per cent. of the weight of a tonne of iron so that one metric tonne unit corresponds to 1/100th of a metric tonne. To buy one tonne of ore with 65 per cent. iron content, a steel producer would receive about slightly more than 1.5 tonnes of ore.

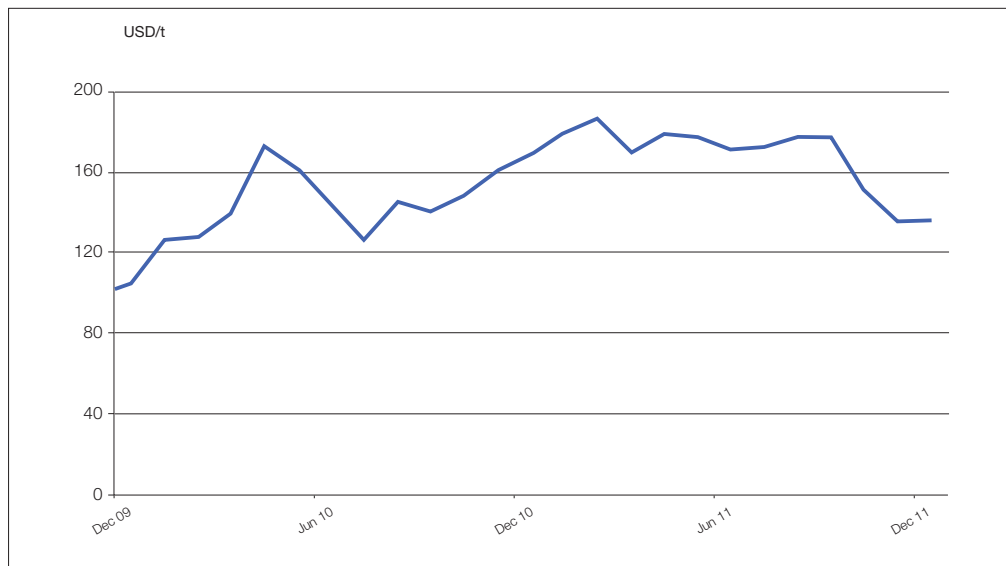
Figure 1: China Steel Import/Production



Source: FoxDavies.

Chinese economic growth and record levels of steel output helped to propel iron ore prices close to \$200/t in 2011, but concern over China’s slowing growth in steel output in October 2011 precipitated a sharp fall in prices. Prices were also seen to fall in 2010 in response to the financial crisis. Figure 2 below shows iron ore price since December 2009. Recently, it is not just China where the outlook for steel production is slowing. Although the Indian domestic sector has reassured outsiders that the steel demand will continue to grow at eight to ten per cent. for some years to come, the World Steel Association (“WSA”) predicted growth of only 4.3 per cent. in 2011, rising to 7.9 per cent. in 2012.

Figure 2: Iron Ore Price



Source: Bloomberg, FoxDavies.

Iron ore prices are predicted to remain in the US\$150 to US\$160 per tonne range for the first half of 2012, reflecting the low prices seen in 2010, and then rise towards the end of the year. There are several factors expected to contribute to a spot price recovery in the same way that since mid-2008, three >25 per cent. declines in price were followed by even more powerful price rises. Firstly, the current fall in iron ore price reflects a price and inventory cycle of the Chinese steel mills. With current softening in demand in the Chinese steel market and low prices affecting steelmaking margins, Chinese steel makers have been forced into reducing blast furnace operating rates and inventory destocking. However, these de-stocking cycles, which serve to lower iron ore prices back in line with steel price trends, have historically only lasted two to



three months and are observed to precede increasing demand in iron ore again after correction. Secondly, the turn of this cycle is forecast to coincide with a tightening of supply, with falling output in India and Brazil and a constrained Chinese domestic supply as operations are impacted by the current price weakness.

In the longer term however, large mining companies such as BHP Billiton and Rio Tinto are planning to increase production dramatically over the next decade, believing strongly in the demand potential for iron ore, primarily from China. This is expected to result in high prices up until 2015 before this new supply comes online, followed by a balancing out of prices from 2016. New developments in processing technology may also extend the productive lives of high-grade iron ore projects by enabling lower-grade mineralisation to be converted to ore.

*This Section, Part IV, Section A, was not exported from the CPR*

## **PART IV: SECTION B**

### **BACKGROUND ON TIN**

#### **1. Tin Background**

Tin is obtained from the mineral cassiterite which is a tin oxide (SnO<sub>2</sub>).

#### **2. Uses of Tin**

Tin is largely used for the production of solder for electronic purposes (48 per cent.). A further 17 per cent. is used for tinfoil, 13 per cent. is used for chemicals, six per cent. is used for industrial solders, five per cent. for Brass & Bronze and three per cent. for float glass.

#### **3. Tin Supply**

Tin production is mainly from underground mines (56 per cent.) as secondary alluvial and alluvial resources (38 per cent.) have been depleted over the past 30 years. Only six per cent. of production is currently from open cast mines. China (45 per cent.) and Indonesia (30 per cent.) are the major producers, with South American countries accounting for most of the balance (Peru, 11 per cent.; Bolivia, five per cent.; and Brazil, four per cent.). Moreover, the Democratic Republic of Congo (“DRC”) produces approximately balance (five per cent.).

Tin supply has recently been affected by the introduction of new environmental legislation in Indonesia, dwindling high grade resources and political risk in countries that have high grade ore (e.g. the DRC), and mine output falling sharply in Brazil. Due to its brittle nature and the cost associated with processing a lower grade resource, it is becoming less economically viable to maintain high levels of production. The increased environmental regulatory environment in Indonesia has resulted in the closure of 18 out of 31 exporting smelters, whilst the largest producer, PT Timah, has reduced output by 20 per cent.

Whilst DRC has the resource potential to fill a global supply deficit, tin is included in a group of ‘conflict minerals’ which are produced there. A new set of rules for mineral suppliers in Central Africa backed by the world’s leading electronics companies came into effect on 1 April 2011 to end the trade’s contribution to violence in the DRC. Mineral trade in the DRC has been a central feature of conflict in the country, with combatant groups fighting for control of mines, perpetrating abuses against local populations to ensure control, and using profits from the trade to obtain weapons and drive armed conflict. The “Conflict-Free Smelter Program” requires participating mineral processing players in the DRC and neighbouring countries to provide proof that their supply purchases do not contribute to conflict in the country by funding militia groups. The programme covers tin, tungsten, gold and coltan.

New tin mine projects are scheduled to come on stream in late 2012 and 2013, with total mineral resources of over 1 Mt of tin metal. However, assuming the world does not experience a sustained recession and short term demand continues to grow, global tin supply is likely to remain stressed.

#### **4. Tin Demand**

The key driver in the increase of tin demand in recent years has been the ban on using lead in certain types of solder. This ban was enforced by the Restriction of Hazardous Substances Directive which took effect on 1 July 2006 and was required to be enforced and become law in each member state of the EU. Prior to 2006, lead made up approximately 33 per cent. of solder production until it was banned. The lead ban created an immediate 50 per cent. increase in the demand for tin solders. The United States continues to use toxic lead solder although industry experts envisage that they will need to move to non-toxic tin solder to comply with global standards which will inevitably increase the demand for tin. In addition, demand in China exceeds domestic supply making it a net importer of tin.

Tin demand has grown significantly and estimated demand for 2011 was approximately 358,200 tonnes, up from 350,000 tonnes in 2010, (source: “EIU”). Forecasts for growth in tin demand remain positive in the

short to medium term. According to the EIU, growth in global tin consumption will continue to increase in 2012 by approximately 2.3 per cent. Tin demand is likely level out in the medium term.

**5. Tin price**

The price of tin on the LME rose from US\$8,000 per tonne in 2006 to approximately over US\$23,000 per tonne in February 2012 (Figure 1). This rise in price has been driven by an increased demand for solder in the electronics industry and supply side limitations. The tin price is currently US\$23,775 as at 2 March 2012.

There are divergent forecasts for tin price going forward. Lars Steffensen, managing partner at Ebullo, is quoted as saying the metal could reach US\$50,000 a tonne. “There is going to be less and less available. People will have to pay higher prices,” he added. “On the supply side you have output problems, (while) consumption is strong.”

The main driver for capping prices would be a slowdown in demand. Currently, only the power problems following Japan’s earthquake and tsunami are expected to have any significant impact on slowing global electronics production. Also, it is possible that China may experience a disruption to the component supply chain which could hinder tin solder demand in the short term. On balance, the tin price is likely to remain at or near current levels over the next two years, beyond which, new production is likely to bring prices down slightly.

Figure 1: Part IV: Section B



Source: Bloomberg.

*This section, Part IV, Section B, was not exported from the CPR.*

## **PART V**

### **RISK FACTORS**

#### **AN INVESTMENT IN THE COMPANY IS SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK.**

The exploration and development of natural resources are speculative activities that involve a high degree of financial risk. Prospective investors should carefully consider all the information in this Document including the risks described below. The risks and uncertainties described below are the material risk factors facing the Company which are currently known to the Directors. These risks and uncertainties are not the only ones facing the Company and additional risks and uncertainties not presently known or currently deemed immaterial may also have a material adverse effect on the Company's business, results of operations or financial condition. If any or a combination of the following risks materialise, the Company's business, financial condition, operational performance and share price could be materially and adversely affected to the detriment of the Company and the Shareholders. Investment in the Company is suitable for persons who can bear the economic risk of a substantial or total loss of their investment. No inference ought to be drawn as to the order in which the following risk factors are presented as to their relative importance or potential effect. The risks are not presented in any order of priority.

#### **COMPANY SPECIFIC RISKS**

##### **Title Risk**

While the Group has attempted to diligently investigate the title to, and rights and interests in the concessions held by the Group and, to the best of its knowledge, such title and interest are in good standing, this should not be construed as a guarantee of the same. The licences may be subject to undetected defects. If a defect does exist it is possible that the Group may lose all or part of its interest in those of the concessions to which the defect relates.

##### **Processing and beneficiation**

###### *Bushveld Iron Ore Project*

It is necessary to demonstrate whether the *in-situ* Ti-magnetite material can be upgraded to a marketable product in the foreseeable future in a competitive global iron ore market. This will need to take account of growing global production of high grade, easily extracted, direct shipping ore, which generally comes from very large deposits having established rail links to shipping outlets. The pyro- and hydro-metallurgical processing of Ti-magnetite to produce pig iron, vanadium and titanium products are complex and require significant capital expenditure and test work. No assurance can be given that commercially viable processing and beneficiation options can be developed, or established technologies sufficiently modified, to realize the envisaged range of intermediate or refined products.

###### *Mokopane Tin Project*

At the Mokopane Tin Project, cassiterite recoveries will be affected by the grain size and mineralogical characteristics of the ore. These have not yet been established. The Company plans to undertake ore dressing studies to determine the recovery factors to be expected when processing the cassiterite ore. Similarly, pyrometallurgical testwork will be undertaken to determine the recoverability of tin from the cassiterite.

##### **BEE Partnership**

The minority interests in each of the Bushveld Iron Ore Project and the Mokopane Tin Project are held by BEE Partners. These minority interests must continue to be held by BEE Partners in accordance with BEE, which is implemented by the terms of the prospecting rights. There can be no guarantee that the BEE Partners will retain their BEE status, in which case the Group would be obliged to find alternative BEE investors and agree a transfer of the existing interest of the relevant BEE Partner.

### **Granting of Prospecting Right 2371**

Renetype, a subsidiary of Greenhills, is currently awaiting the granting of Prospecting Right 2371 and there can be no guarantee that this prospecting right will be granted.

### **Renewal of Prospecting Right 438**

Prospecting Right 438 (currently registered in the name of AMM) has expired and is awaiting renewal, following which an application will be made to transfer it to Amaraka, a subsidiary of Bushveld Resources. There is no guarantee that this prospecting right will be renewed, or the transfer to Amaraka from AMM will be approved. This prospecting right continues in force until it is either renewed or the renewal application is refused.

The Group does not consider Prospecting Right 2371 or Prospecting Right 438 to be part of its core current activities.

### **Surface Rights**

There are no formal leases in place for the Group's occupation of the land. Izingwe has the benefit of a letter from Bakenberg Traditional Council granting consent to prospect on the land used in the Bushveld Iron Ore Project, and VMI has previously held discussions with the Koka Matlou Community regarding the impact of the prospecting operations on the land used in the Mokopane Tin Project. The Group has been informed that section 5(3) of the MPRDA gives the holder of the prospecting right surface use rights. If the landowner does not grant permission to the holder of the prospecting right to access the land, the holder can enforce its statutory rights in accordance with the provisions of the MPRDA.

### **Infrastructure**

Development and exploration activities depend on adequate infrastructure, including but not exhausted to rail, power sources and water supply. The Group's inability to secure adequate rail capacity, power and water resources, as well as other events outside of its control, such as unusual weather, sabotage, government or other interference in the maintenance or provision of such infrastructure, could adversely affect the Group's operations and financial condition.

### **Electricity**

Electricity supply and distribution in South Africa is principally conducted by Eskom. South African electricity supply is under pressure and demand is greater than supply. If the Company is unable to source sufficient electricity to mine the Projects to the extent envisaged in this Document it may need to apply to the South African Government for a licence to generate its own electricity through binding a proper plant. This may involve extra cost, senior managerial resource and delays to developing the Projects.

### **Rail**

The Company intends to utilise the local railway line to transport tin and Ti-magnetite concentrate from the Bushveld Complex to the ports of Maputo, Richards Bay or Durban. Investment is needed to optimise the railway line to create sufficient capacity to transport effectively minerals in the volumes envisaged in this Document. In order to carry out the optimisation, certain third party collaboration will be needed. Inevitably where third parties are involved there is a risk of delay, increased expense and the potential for disagreement.

### **Exploration and development risks**

Mineral exploration and development involves a high degree of risk. Few properties which are explored are ultimately developed into producing mines. Success in increasing mineral resources is the result of a number of factors, including the level of geological and technical expertise, the quality of land available for exploration and other factors. Once mineralisation is discovered it may take several years of drilling and development until production is possible, during which time the economic feasibility of production may change. The economics of developing mineral properties are affected by many factors including the cost of operations, variations of the grade of ore mined, processing and beneficiation, fluctuations in the price of

minerals produced, fluctuations in exchange rates, costs of development, infrastructure and processing equipment and such other factors as government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. As a result of these uncertainties, there can be no assurance that mineral exploration and development of the Projects will result in profitable commercial operations.

### **Estimates of mineral reserves and resources**

Estimates of mineral reserves and resources for development projects are, to a large extent, based on the interpretation of geological data obtained from drill holes and other sampling techniques and feasibility studies which derive estimates of costs based upon anticipated tonnage and grades of ores to be mined and processed, the configuration of the ore body, expected recovery rates from the ore, estimated operating costs, anticipated climatic conditions and other factors. The mineral resource estimates contained in this Document are estimates only and no assurance can be given that any particular grade, stripping ratio or grade of minerals will in fact be realised or that an identified reserve or resource will ever qualify as a commercially mineable (or viable) deposit which can be legally and economically exploited.

### **Operational Targets**

The operational targets of the Group will be subject to the completion of planned operational goals on time and according to budget, and are dependent on the effective support of personnel, systems, procedures and controls. Any failure of these may result in delays in the achievement of operational targets with a consequent material adverse impact on the business, operations and financial performance of the Group. It is, therefore, possible that exploration and mining activity levels might fluctuate. Unscheduled interruptions in the Group's operations due to mechanical or other failures or industrial relations related issues or problems or issues with the supply of goods or services could have a serious impact on the financial performance of those operations. The Group will not generate any material income until mining has successfully commenced. In the meantime the Group will continue to expend its cash reserves.

### **Operating history**

Despite the operating history of some of its wholly and partly owned subsidiaries, Greenhills and Bushveld Resources or "the Group" are recently formed corporations with limited operating histories in the mineral exploration and development business. There can be no assurance that the Company will produce revenue, operate profitably or provide a return on investment.

### **Environmental regulation**

Environmental and safety legislation (e.g. in relation to reclamation, disposal of waste products, protection of wildlife and otherwise relating to environmental protection) may change in a manner that may require stricter or additional standards than those now in effect, a heightened degree of responsibility for companies and their directors and employees and more stringent enforcement of existing laws and regulations. There may also be unforeseen environmental liabilities resulting from mining activities, which may be costly to remedy. If the Group is unable to fully remedy an environmental problem, it may be required to stop or suspend operations or enter into interim compliance measures pending completion of the required remedy. The potential exposure may be significant and could have a material adverse effect on the Group. The Group has not purchased insurance for environmental risks (including potential liability for pollution or other hazards as a result of the disposal of waste products occurring from exploration and production) as it is not generally available at a price which the Group regards as reasonable.

### **Operating risks**

The activities of the Group are subject to all of the hazards and risks normally incidental to exploring and developing natural resource projects. These risks and uncertainties include, but are not limited to, environmental hazards, industrial accidents, labour disputes, encountering unusual or unexpected geologic formations or other geological or grade problems, unanticipated challenges in metallurgical characteristics and mineral recovery, encountering unanticipated ground or water conditions, cave-ins, pit wall failures,

flooding, rock bursts, periodic interruptions due to inclement or hazardous weather conditions and other acts of God or unfavourable operating conditions and losses. Should any of these risks and hazards affect the Group's exploration, development or mining activities, it may cause the cost of production to increase to a point where it would no longer be economic to produce mineral resources from the Group's properties, require the Group to write-down the carrying value of one or more mineral projects, cause delays or a stoppage of mining and processing, result in the destruction of mineral properties or processing facilities, cause death or personal injury and related legal liability; any and all of which may have a material adverse effect on the Company.

It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability, result in increasing costs or the loss of its assets and a decline in the value of the Company's securities.

### **Competition**

The mineral exploration and mining business is competitive in all of its phases. The Group competes with numerous other companies and individuals, including competitors with greater financial, technical and other resources than the Group, in the search for and acquisition and development rights on attractive mineral properties. The Group's ability to acquire exploration and development rights on properties in the future will depend not only on its ability to develop the properties on which it currently has exploration rights, but also on its ability to select and acquire exploration and development rights on suitable properties for exploration and development. There is no assurance that the Group will continue to be able to compete successfully in acquiring exploration and development rights on such properties.

### **Government regulation and political risk**

The Group's operating activities are subject to laws and regulations governing expropriation of property, health and worker safety, employment standards, waste disposal, protection of the environment, mine development, land and water use, prospecting, mineral production, exports, taxes, labour standards, occupational health standards, toxic wastes, the protection of endangered and protected species and other matters. While the Directors believe that the Group is in substantial compliance with all material current laws and regulations affecting its activities, future changes in applicable laws, regulations, agreements or changes in their enforcement or regulatory interpretation could result in changes in legal requirements or in the terms of existing permits and agreements applicable to the Group or its properties, which could have a material adverse impact on the Group's current operations or planned development projects. Where required, obtaining necessary permits and licences can be a complex, time consuming process and the Group cannot assure whether any necessary permits will be obtainable on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining necessary permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Group from proceeding with any future exploration or development of its properties, including in particular the Projects. Any failure to comply with applicable laws and regulations or permits, even if inadvertent, could result in interruption or closure of exploration, development or mining operations or material fines, penalties or other liabilities.

The Projects are located in South Africa. The Group's activities may be affected in varying degrees by political stability and governmental regulations. Any changes in regulations or shifts in political attitudes in the South Africa are beyond the control of the Group and may adversely affect its operations.

### **Financing**

The Group is likely to remain cash flow negative for some time and, although the Directors have confidence in the future revenue earning potential of the Company from its interest in the Projects, there can be no certainty that the Company will achieve or sustain profitability or positive cash flow from its operating activities. The Company will need to raise additional capital in the future to fund the development of the Projects and future tin prices, revenues, taxes, capital expenditures and operating expenses and geological success will all be factors which will have an impact on the amount of additional capital required. Any additional equity financing may be dilutive to Shareholders and debt financing, if available, may involve restrictions on financing and operating activities. If the Company is unable to obtain additional financing as

and when needed, it could result in a delay or indefinite postponement of exploration and development activities.

### **Currency risk**

While the sale of tin and iron ore is principally in US Dollars throughout the world, a significant portion of the Group's expenses incurred in connection with the Projects will be in Rand. As a result, fluctuations in currency exchange rates could have a material adverse effect on the financial condition, results of operation or cash flow of the Group. The Group does not currently intend to enter into any hedging arrangements with respect to foreign currencies.

### **Competition**

The mining industry is competitive in all of its phases. The Group faces strong competition from other mining companies in connection with the acquisition of mineral properties producing, or capable of producing, 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.

### **Reliance on strategic relationships**

In conducting its business, the Group will rely on continuing existing strategic relationships and forming new ones with other entities in the tin industry and South Africa and also certain regulatory and governmental departments. While the Group has no reason to believe otherwise, there can be no assurance that its existing relationships will continue to be maintained or that new ones will be successfully formed.

### **Dependence on key personnel**

The Company 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. The Group's future success will also depend in large part upon its ability to attract and retain highly skilled personnel. There can be no assurance that the Group will be successful in attracting and retaining such personnel.

### **Joint Ventures**

The Group may enter into joint venture arrangements with regards future exploration, development and production properties (including potentially the Group's concessions). There is a risk any future joint venture partner does not meet its obligations and the Group may therefore suffer additional costs or other losses. It is also possible that the interests of the Group or future joint venture partners are not aligned resulting in project delays or additional costs and losses. The Group may have minority interests in the companies, partnerships and ventures in which it invests and may be unable to exercise control over the operations of such companies.

### **General Investor Risks**

A prospective investor should consider with care whether an investment in the Company is suitable for him in light of his personal circumstances and the financial resources available to him. An investment in the Company is only suitable for investors capable of evaluating the risks and merits of such investment and who have sufficient resources to bear any loss which may result from the investment. Prospective investors should therefore consult an independent financial adviser authorised under the FSMA (if before investing in the United Kingdom) or, if not, another appropriately authorised independent adviser who specialises in advising on the acquisition of shares and other securities.

Investment in the Company should not be regarded as short-term in nature. There can be no guarantee that any appreciation in the value of the Company's assets or investments will occur or that the investment objectives of the Company will be achieved. Investors may not get back the full amount initially invested. The price of shares and the income derived from them can go down as well as up. Past performance is not necessarily a guide to the future. There is also the possibility that the market value of an investment in the Company may not reflect the true underlying value of the Company.



Changes in economic conditions including, for example, interest rates, rates of inflation, industry conditions, competition, political and diplomatic events and trends, tax laws and other factors can substantially and adversely affect investments and the Company's prospects.

Notwithstanding the fact that the Company has made an application for the Ordinary Shares to be admitted to trading on AIM, this should not be taken as implying that the application will be successful or that there will be a "liquid" market in the Ordinary Shares. An active liquid market for the Ordinary Shares may not develop and the market price of the Ordinary Shares may be lower than the Placing Price and may be highly volatile. The market for shares in smaller public companies is less liquid than for larger public companies. The Company cannot predict the effects on the price of the Ordinary Shares if a liquid and active market for the Ordinary Shares does not develop. In addition, if such a market does not develop, relatively small sales may have a significant negative impact on the price of the Ordinary Shares and sales of a significant number of Ordinary Shares may be difficult to execute at a stable price. Shareholders accordingly may not be able to realise their investment at or above the Placing Price.

The Ordinary Shares will not be listed on the Official List. Investments in shares traded on AIM carry a higher degree of risk than investments in shares quoted on the Official List. The rules of AIM are less stringent than those of the Official List. Further, neither the London Stock Exchange, the UKLA nor the FSMA has examined or approved the contents of this Document.

Even if the Company's application for the Ordinary Shares to be admitted to trading on AIM is successful, the Company cannot assure investors that the Ordinary Shares will always be traded on AIM. If they fail to remain traded, certain investors may decide to sell their Ordinary Shares, which could have an adverse impact on the Ordinary Share price. Additionally, if in the future the Company decides to obtain a listing on another exchange in addition to AIM, the level of liquidity of the Ordinary Shares traded on AIM could decline.

Stock markets in general may experience extreme price fluctuations. Fluctuations in the price of the Ordinary Shares may not be correlated in a predictable way to the Company's performance or operating results. Sales of substantial amounts of Ordinary Shares following Admission, or the perception that these sales could occur, could materially adversely affect the market price of the Ordinary Shares available for sale compared to the demand to buy Ordinary Shares. Such sales may also make it more difficult for the Company to sell or issue equity securities in the future at a time and price that is deemed appropriate.

The following non-exhaustive factors (among others), some of which are beyond the control of the Company, could cause the price of the Ordinary Shares in the public market to fluctuate significantly from the Placing Price:

- (a) changes in law or regulations, including mining legislation, tax laws, or new interpretations or applications of laws and regulations, that are applicable to the Group's business;
- (b) departure of Directors or senior management;
- (c) changes in the Group's financial performance and prospects and changes in the financial performance and prospects of companies engaged in businesses that are similar to the Group's business;
- (d) sales of the Company's Ordinary Shares by Shareholders;
- (e) general economic trends and other external factors, including those resulting from war, incidents of terrorism, civil unrest, natural disasters or responses to such events;
- (f) speculation in the press or investment community regarding the Group's business, or factors or events that may directly or indirectly affect its business or investments; and
- (g) further issuance of Ordinary Shares by the Company.

Securities markets in general have experienced extreme volatility that has often been unrelated to the operating performance of particular companies or partnerships. Any broad market fluctuations may adversely affect the trading price of the Ordinary Shares.

## **Market perception**

Market perception of mining and exploration companies may change which could impact on the value of investors' holdings and impact on the ability of the Company to raise further funds by the issue of further shares or other securities in the Company.

## **Ordinary Shares may trade at a discount to net asset value**

The Ordinary Shares could trade at a discount to net asset value for a variety of reasons, including market conditions, liquidity concerns or the Company's actual or expected performance.

## **Legal, Tax and Regulatory Risks**

### **Legal systems**

The South African and other jurisdictions in which the Group might operate in the future may have less developed legal systems than more established economies which could result in risks such as (i) effective legal redress in the courts of such jurisdictions, whether in respect of a breach of law or regulation, or in an ownership dispute, being more difficult to obtain; (ii) a higher degree of discretion on the part of governmental authorities; (iii) the lack of judicial or administrative guidance on interpreting applicable rules and regulations; (iv) inconsistencies or conflicts between and within various laws, regulations, decrees, orders and resolutions; or (v) relative inexperience of the judiciary and courts in such matters. In certain jurisdictions the commitment of local business people, government officials and agencies and the judicial system to abide by legal requirements and negotiated agreements may be more uncertain, creating particular concerns with respect to the Group's licences and agreements for business. These may be susceptible to revision or cancellation and legal redress may be uncertain or delayed. There can be no assurance that joint ventures, licences, licence applications or other legal arrangements will not be adversely affected by the actions of government authorities or others and the effectiveness of and enforcement of such arrangements in these jurisdictions cannot be assured.

### **Litigation risks**

Legal proceedings may arise from time to time in the course of the Group's business. There have been a number of cases where the rights and privileges of mining and exploration companies have been the subject of litigation. The Directors cannot preclude that such litigation may not be brought against the Company in the future from time to time or that it may not be subject to any other form of litigation.

Due to the relatively undeveloped legal systems in some of the jurisdictions in which the Company may invest, the Company may find it difficult, impossible or very costly to enforce the rights it may have under agreements it may enter into.

### **Guernsey Law**

The Company is a Guernsey company limited by shares incorporated in Guernsey on 5 January 2012 under the Companies Law.

There are a number of differences between the Company and that of a public limited company incorporated in England and Wales under the 2006 Act and set out below is a description of the principal relevant differences.

- (i) Pre-emption rights: the Companies Law does not provide any statutory pre-emption rights. The Articles therefore include equivalent provisions, as summarised in paragraph 7 of Part VIII of this Document.
- (ii) Disclosure of interests in shares: under the Companies Law, shareholders are not obliged to disclose their interests in a company in the same way as shareholders of certain public companies incorporated in the United Kingdom are required to do. In particular, the Transparency Obligations Directive (Disclosure and Transparency Rules) Instrument 2006 ("**DTR**") introduced by the FSA do not apply. The Articles incorporate provisions equivalent to those contained in the DTRs, but may be amended

by a resolution of the Shareholders in accordance with the Articles. The inclusion of these provisions in the Articles will not necessarily ensure compliance with Rule 17 of the AIM Rules for Companies.

### **Tax residency**

The Company will initially be managed and controlled from South Africa and is initially anticipated to be considered to be resident in the Guernsey for tax purposes. However, the location of the management and control of the Company may change in the future and/or may be questioned by applicable tax authorities, either of which may affect the Company's tax residency and therefore the Company's tax position.

### **Dilution of Shareholders' interests**

The Company may need to raise additional funds in the future to finance its activities, investments and/or 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 Shareholders may be reduced, Shareholders may experience subsequent dilution and/or such securities may have preferred rights, options and pre-emption rights senior to the Ordinary Shares.

The Directors intend that the Company should be able to issue new Ordinary Shares as consideration for further acquisitions and/or raise additional working capital for the Company as required. Insofar as such new Ordinary Shares are not offered first to existing Shareholders, then their interests in the Company will be diluted.

### **Takeover Code**

The Company is not subject to the Takeover Code. Accordingly, Shareholders will not benefit from the protections of the Takeover Code, including in particular Rule 9 of the Takeover Code.

Although the Articles contain provisions substantially similar to Rule 9 of the Takeover Code (as summarised in paragraph 7.20 of Part VIII of this Document), it should be noted that such provisions do not necessarily accord Shareholders protections similar to the Takeover Code. In particular, the Takeover Panel will not have the authority to monitor Shareholders' compliance with the takeover provisions of the Articles nor impose sanctions in respect of any breach of such provisions and the protection in the Articles can be varied by the Directors, rather than the Shareholders of the Company as is the case under the Takeover Code.

### **Economic, political, judicial, administrative, taxation or other regulatory factors**

The Company may be adversely affected by changes in economic, political, judicial, administrative, taxation or other regulatory factors, in the areas in which the Company may operate and hold its assets, as well as other unforeseen matters.

### **Forward looking statements**

Certain statements within this Document, including those contained in Parts I to IV of this Document, constitute forward looking statements. Such forward looking statements involve risks and other factors which may cause the actual results, achievements or performance of the Group to be materially different from any future results, achievements or performance expressed or implied by such forward looking statements. Such risks and other factors include, but are not limited to, general economic and business conditions, changes in government regulation, currency fluctuations, the Group's ability to develop their existing or new resources, competition, changes in development plans and the other risks described in this Part V. There can be no assurance that the results and events contemplated by the forward looking statements contained in this Document will, in fact, occur. These forward looking statements are correct only as at the date of this Document. The Company will not undertake any obligation to release publicly any revisions to these forward looking statements to reflect events, circumstances or unanticipated events occurring after the date of this Document except as required by law or by regulatory authority.

**The risks noted above do not necessarily comprise all those faced by the Company and are not intended to be presented in any assumed order of priority.**

**There may be special risks if an investor holds Ordinary Shares in certain jurisdictions. At this time, the Company does not intend to make accommodations regarding its financial information to assist any holders with their tax obligations.**

**The investment described in this Document is speculative and may not be suitable for all recipients of this Document. Potential investors are accordingly advised to consult a person authorised under FSMA (or who is authorised in the appropriate jurisdiction for potential investors outside the UK) who specialises in advising in investments of this kind before making any investment decisions. A prospective investor should consider carefully whether an investment in the Company is suitable in the light of his personal circumstances and the financial resources available to him.**

## **PART VI**

### **COMPETENT PERSON'S REPORT**

Set out overleaf is the full text of a Competent Person's Report prepared by MSA.



**Specialist Consultants  
to the Mining Industry**

## **JORC Competent Persons' Report and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project**

*Prepared by The MSA Group on behalf of:*

**BUSHVELD RESOURCES LIMITED, and  
FOX-DAVIES CAPITAL LIMITED**



## **JORC Competent Persons' Report and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project**

covering the farms:

**Vriesland 781LR, Vliegekraal 783LR, Malokong 784LR and Vogelstruisfontein 765LR**

**Prepared by MSA Group on behalf of:**

Bushveld Resources Limited, and  
Fox-Davies Capital Limited

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**Authors:**

Friedrich J. Reichhardt  
Michael R. Hall

**Position:**

Principal Consulting Geologist  
Consulting Geologist – Mineral Resources

**Affiliations:**

Pr.Sci.Nat., FGSSA, MGSG  
Pr.Sci.Nat., MGSSA, MAusIMM

**Date:** 25 November 2011

**Project**

**Code:** J2169

A handwritten signature in black ink, appearing to read 'F. Reichhardt', written over a horizontal line.

Primary Author  
Frieder Reichhardt

A handwritten signature in black ink, appearing to read 'R. Wadley', written over a horizontal line.

Supervising Principal  
Richard Wadley



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- Appendix 1: Certificate for Certified Reference Material (CRM) AMIS129
- Appendix 2: Histograms of the elemental population distribution

# 1 SUMMARY

## 1.1 Purpose of Report

The MSA Group (MSA) has been commissioned by Bushveld Resources Limited (BRL) to provide a JORC-compliant Competent Persons' Report (CPR) and Mineral Resource Estimate (MRE) on the Mokopane Fe-V-Ti project ("Mokopane Project") located in South Africa. The report describes the execution and findings of a vanadiferous titano-magnetite exploration programme "The Mokopane Project" in the northern lobe of the Bushveld Complex near Mokopane, South Africa. The exploration activities were conducted by Frontier Platinum Resources (Pty) Ltd (Frontier) which is a project management company 100% owned by BRL.

## 1.2 Mineral Tenure

Mineral tenure in South Africa is governed by the regulations of the Mineral & Petroleum Resources Development Act, 2002 (MPRDA). The following Prospecting Rights (PR) were granted in terms of Section 16 of the MPRDA and constitute the Project area (Table 1–1):

- **95PR** covering the farms Vriesland 781LR, Vliegekraal 783LR and Vogelstruisfontein 765LR is granted for iron ore, vanadium, titanium, nickel, copper, cobalt, chrome, platinum group metals, gold and all minerals that may be found in intimate association with the latter
- **438PR** covering the farm Malokong 784LR is granted for iron ore, titanium, nickel, copper, cobalt and platinum group metals

<b>Company</b>	<b>BRL Interest (%)</b>	<b>Farm Names</b>	<b>Minerals</b>	<b>Area (ha)</b>	<b>PR No.</b>	<b>Status</b>
Pamish Investments No 39 (Pty) Ltd	64%	Vogelstruisfontein 765LR, Vriesland 781LR and Vliegekraal 783 LR	Platinum Group Metals, Cobalt, Copper, Nickel, Chrome, Iron Ore, Vanadium, Titanium and all minerals that may be found in intimate association with the latter	5545.5600	95PR	Right renewed on 30/05/2011 for 3 years
Afro Multi Minerals (Pty) Ltd	55%	Malokong 784 LR	Copper Ore, Cobalt, Nickel, Iron Ore, Titanium Ore and Platinum Group Metals	1863.9378	438PR	Renewal Application submitted and Section 11 Application to be submitted upon approval of renewal

The status of tenements is based on information and copies of documents provided by Frontier. MSA has not independently verified, nor is it qualified to verify, the legal status of the Prospecting Rights and assumes that the Mokopane project will prove lawfully accessible for further exploration.



The Prospecting Rights for the Project are held under various licences and details of which are given in Table 1–1.

- A Strategic Association Agreement between BRL and Izingwe Capital (Pty) Ltd, created Pamish Investments No 39 (Pty) Ltd to which the Prospecting Right LP95PR has been transferred in terms of Section 11 of the Mineral and Petroleum Resources Development Act , Act 28 of 2002 (MPRDA)
- A Strategic Investment Agreement between Afro Multi Minerals (Pty) Ltd, Pamish Investments No. 63 (Pty) Ltd, Amaraka Investments No. 85 (Pty) Ltd and BRL, based on which BRL acquired a 55% equity interest in Amaraka Investments No. 85 (Pty) Ltd. Prospecting right LP438PR is currently under renewal application after which transfer to Amaraka from Afro Multi Minerals in terms of Section 11 of the MPRDA will be processed

Whilst MSA made sufficient inquiry about the legal status of these Rights, this does not constitute a legal opinion. However, MSA is satisfied that the Rights and the corporate structure presented is a fair reflection of the current holdings.

### **1.3 Location**

The Mokopane Ti-magnetite Project (the Project) is situated approximately 65 km west of Polokwane and 45 km north-northwest of Mokopane in the Mokopane District, Limpopo Province, South Africa (Figure 4-1).

The Project is located in the central portion of the Northern Lobe of the Bushveld Complex (BC) and has been established on a group of four adjacent farms namely Vogelstruisfontein 765LR, Malokong 784LR, Vliegekraal 783LR and Vriesland 781LR.

### **1.4 Geology**

The Project area is situated within the Northern Lobe of the BC and covers the top portion of the Main Zone (MZ) and the entire Upper Zone (UZ). The latter is approximately 1200 m thick and dips gently (15° to 25°) to the west. The UZ is characterised by the presence of vanadiferous titano-magnetite (VTM) layers hosted predominantly by VTM-enriched gabbros and gabbro-norites. The VTM layers include disseminated, semi-massive and massive VTM intervals of variable proportions and thicknesses.

The BC is the world's largest and economically most important layered complex and is known for the remarkable geological and geochemical continuity of the magmatic stratigraphy. In common with other layered intrusions such as the Great Dyke in Zimbabwe (Wilson, 1997), Molopo Farms Complex in Botswana (Reichhardt, 1994) and the Stillwater Complex in the USA (Irvine et al., 1983) the intrusive ultramafic to mafic magma has undergone a differentiation process which has resulted in the formation of magnesium-, chromium-, nickel- and precious metal-rich units in the lower part of the Complex with iron-, titanium-, vanadium- and phosphorus-rich layers in the upper portion of the intrusion.



The Upper Zone consists of numerous cyclic units of alternating and well-layered rocks and is subdivided into three Subzones based on the presence of modal olivine in rocks of Subzone B and modal apatite in the uppermost Subzone C. The rocks show remarkable continuity and individual layers can generally be traced along strike for tens of kilometres and more.

Exploration has focussed on the semi-massive to massive Main Magnetite Layer (MML) and the stratigraphically higher P and Q Layers together with their enclosing gabbroic rocks which contain considerable quantities of medium- to coarse-grained disseminated Ti-magnetite.

The MML mineralised zone occurs near the base of the Upper Zone and consists of an upper VTM-rich interval (MAG 3) which is separated from a lower VTM-rich interval (MAG 4) by a VTM-poorer leucogabbronorite parting. The MML was intersected in four vertical boreholes (VL2, VL3, VL5 and VK5) in the Project area and ranges in down-hole thickness from 8.8 m to 9.4 m. The calculated average true thickness of the MML is 8.4 m after correcting for a dip of 18°.

The P-Q Zone occurs near the top of the Upper Zone and includes the two closely associated leucogabbronorite-hosted VTM-rich layers P and Q which are commonly separated by a leucogabbronorite parting with a low VTM content. VTM-enriched gabbros and norites with up to 50% disseminated Ti-magnetite occur in the foot- and hanging-wall sequence of the P-Q Layers and together with the latter, more massive layers, form the so-called P-Q Zone.

The P and Q Layers consist of high-grade VTM-rich intervals alternating with relatively narrow bands of gabbronorite with variable amounts of VTM (<10% to >50%). Individual VTM-rich and VTM-poor "sub-layers" within the P and Q Layers can be only broadly correlated between boreholes and their relative thicknesses and Ti-magnetite abundance determine the overall VTM and hence Fe content of the P and Q Layers. Frontier intersected the P and Q layers and the VTM-enriched foot- and hanging-wall sequence (P-Q Zone) in ten boreholes. The entire P-Q Zone including the P and Q Layers has a downhole width ranging from 26 m to 82 m with an average true width of approximately 50 m after correction for a dip of 22°.

## **1.5 Previous Work**

The project area has not been previously explored for its Ti-magnetite potential but was covered by a regional geochemical soil sampling and geological mapping programme by the Council for Geoscience (CGS). The latter work was published in 1985 at 1:250,000 scale as the 2328 Pietersburg Geological Series map. The soil sampling was conducted at 1km intervals and the samples were analysed by XRF and ICP-MS for over 40 elements including Fe<sub>2</sub>O<sub>3</sub>, V, TiO<sub>2</sub>, Cu and Ni. Significant vanadium and titanium anomalies occur and generally coincide with areas mapped as Upper Zone of the Bushveld Complex which contains numerous semi-massive and massive Ti-magnetite layers interlayered with Ti-magnetite-bearing gabbroic rocks.

A regional aeromagnetic and radiometric survey was conducted in the 1990s and processed by the CGS. The data shows prominent northerly-trending magnetic zones which have been





correlated with the two most magnetite-rich stratigraphic units which in turn host groups of individual magnetite seams namely the Main Magnetite Group and the P-Q Magnetite Group.

A stratigraphic borehole BV-1 was drilled by the CGS in 1991 on the farm Bellevue some 2 km south-west of the project area. The 2 950 m deep hole covered the entire Upper Zone stratigraphy and intersected 32 discrete layers of Ti-magnetite or Ti-magnetite-rich rock (>20% opaque minerals) ranging in thickness between 7 cm and 13 m (Ashwal et al., 2005). Most prominent are the uppermost semi-massive Ti-magnetite layer (Q layer) which has a thickness of 13 m; and an approximately 8 m thick vanadium-rich layer with variable Ti-magnetite content. The latter is some 175 m above the base of the Upper Zone and can be correlated with the Main Magnetite Layer (MML). The occurrence of the two most prominent Ti-magnetite layers at borehole depths of approximately 600 m and 1 400 m documents the remarkable spatial continuity of these layers.

## **1.6 Historical Mineral Resource Estimates**

The P-Q Layers in the Project area have not been previously identified, while the MML is only partially portrayed on existing maps and exposed in isolated outcrops. No historic Mineral Resource Estimates were therefore carried out in the Project area.

## **1.7 Recent Work and Current Mineral Resource Estimate**

A total of 4 234.06 m was drilled during the 2010-2011 drilling campaigns in 17 diamond drillholes on the farms Vliegekraal and Vriesland. This included 4 drill holes totalling 902.02 m on the MML and 10 drillholes totalling 2 583.77 m on the P-Q Zone.

An appropriate quality control program was in place through most of this campaign, and followed industry best practice through the use of certified reference materials, field and laboratory duplicates, blanks, and check samples analysed at an independent laboratory. Based on these results, it is concluded that the sampling and assay data from the 2010-2011 drill programme are acceptable for use in a mineral resource estimate.

In terms of the SAMREC and JORC codes, formal mineral resource estimates may include not only mineralisation that has the potential to be economically viable using currently practised mining and extraction technology, but also mineralisation that in the opinion of the independent competent persons has reasonable potential to become economically viable with advances in mining and extraction technology within the foreseeable future. Mineralisation within both the MML and P-Q Zones at the Mokopane Project appears to be fairly continuous to considerable depths – depths well below those currently considered to be of economic viability. In this Mineral Resource Estimation exercise, cognisance has been taken of the substantial mineralisation that is likely to be present at depth; and depth cut-offs have been imposed based on simplistic bulk stripping ratios that, while considerably beyond the limits of current commercial mining practice, might conceivably become viable in the future. The estimates do not, however, take any account of the additional costs that might prove to be associated with the extraction of saleable metals from the mineralogically complex Ti-magnetite material

(relative to more conventional iron deposits), simply because insufficient quantitative metallurgical test work has been undertaken to date.

Mineral resource estimations were undertaken on the MML down to a vertical depth of 100 m, at a 40% Fe<sub>2</sub>O<sub>3</sub> cut-off (Table 1-2). The resource extends over a strike length of 5.5 km, is open-ended to the north and south and has an average true thickness of approximately 8.4 m.

<b>Table 1-2</b>									
<b>MML In-situ inferred Mineral Resources, &lt;100 m at 40% Fe<sub>2</sub>O<sub>3</sub> cut-off</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
40	66.21	3.83	37.1	53.1	0.01	9.2	1.24	17.9	11.1

The P-Q Zone is divided into a northern and southern block due to a structural fault and the two domains were modelled separately. Mineral resource estimations were undertaken on the P-Q Zone North, down to vertical depths of 200 m and 400 m, at a 35 % Fe<sub>2</sub>O<sub>3</sub> cut-off (Table 1-3 and Table 1-4). The resource extends over 4 km along strike, is open-ended to the north and south and has average true thicknesses of approximately 40 m in the north and 50 m in the south.

<b>Table 1-3</b>									
<b>Combined P-Q Zone In-situ Indicated Mineral Resources, &lt;200 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	260.20	3.70	32.4	46.3	0.05	11.3	0.18	24.4	10.2

<b>Table 1-4</b>									
<b>Combined P-Q Zone In-situ Inferred Mineral Resources, &lt; 400 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	307.23	3.75	31.9	45.7	0.05	11.5	0.19	23.4	10.2

The exploration programme has thus shown that the Project area contains approximately 260 million tonnes of VTM-rich material with an Fe<sub>2</sub>O<sub>3</sub> content of 46.3% in the Indicated category and a further 373 million tonnes in the Inferred category with Fe<sub>2</sub>O<sub>3</sub> contents varying between 45.7% and 53.1% down to vertical depths of up to 400 metres.

## 1.8 Recommendations

Appropriate laboratory testwork will need to be carried out for the P-Q Layers and particularly the disseminated foot- and hanging-wall sequence (P-Q Zone) because no comparative processing and metallurgical studies or mining operations exist for this type of material.

In-fill drilling is to be undertaken on the MML Layer at 250 m spacing in order to upgrade the mineral resource from the currently Inferred category to a Measured resource status. The drilling should be limited in depth due to the apparent prohibitive stripping ratios at depths below 100 m. This drilling will also enhance geological confidence in terms of structure.

Hanging- and footwall disseminations around the P-Q Magnetite Layers should be sampled completely as these Ti-magnetite enrichments could also be of economic interest and could increase the tonnage of the P-Q Zone where the disseminations were not sampled.

Trenching is recommended to expose and sample in-situ material for ore characterisation test work and bulk density measurements.

Down-hole surveys need to be carried out on all future boreholes exceeding a depth of 200 m to determine the potential deviation of boreholes from the planned vertical path.

Density measurements need to be undertaken on all sampled drillcore material in order to obtain more representative measurements, which could affect tonnage estimates and therefore stripping ratios.

The sample lengths over the mineralised intervals should be standardised to 1 m.

Sulphur should be analysed as some disseminated sulphides occur in the mineralised zones and could be a deleterious component. There are currently insufficient sulphur analytical data upon which to base a reliable average value.

It is recommended that internal V-rich standards are produced and the  $V_2O_5$  concentrations verified by several laboratories by means of a round-robin exercise. The standards should be inserted into future sample batches to monitor and verify concentrations above 0.5%  $V_2O_5$  in samples from the MML.

The drilling, drill core sampling and assay programme conducted by Frontier has been critically reviewed and no material issues regarding operational procedures have been identified. It is however recommended that the number of field duplicates inserted into the sample stream is increased to 5% to comply with industry best practice QAQC standards. Certified quartz sand should be inserted as control samples rather than river sand. The monitoring and potential rejection of failed control samples need to be carried out more thoroughly.

The existing borehole and assay data need to be captured in a relational master database to ensure data integrity and allow multiple data queries.



BRL plans to advance the Mokopane Project from its current exploration level through a Scoping Study to a Pre-feasibility Study and ultimately to Feasibility Study over a 2 to 3 year period. This will include the acquisition and evaluation of additional properties adjacent to the existing Project area.

The following budget is proposed by BRL to increase the current mineral resource base and to advance the Project to a level required for a Pre-Feasibility Study:

<b>Table 1-5 BRL planned budget for Mokopane Project</b>	
	<b>US \$</b>
<b>Acquisition costs for additional Prospecting Rights on adjacent farms</b>	800 000
<b>Geological and Exploration work to increase Mineral Resource base and improve level of confidence</b>	4 422 000
Contingency 10%	522 200
Subtotal	5 744 200
<b>Beneficiation and pyrometallurgical test work</b>	2 350 000
Contingency 25%	587 500
Subtotal	2 937 500
<b>Pre-feasibility Study</b>	2 965 000
Contingency 20%	593 000
Subtotal	3 558 000
<b>Grand Total</b>	<b>12 239 700</b>

Note: Above expenditure excludes Corporate, Administration and Listing costs

MSA has been presented with a detailed breakdown of the individual cost items and is satisfied that the proposed budget should be adequate to finance the planned activities outlined in Table 1-5.



## **2 INTRODUCTION AND TERMS OF REFERENCE**

The MSA Group (MSA) has been commissioned by Bushveld Resources Limited (BRL) to provide a JORC- compliant Competent Persons' Report (CPR) and Mineral Resource Estimate (MRE) on the Mokopane Fe-V-Ti project ("Mokopane Project") located in South Africa. The report describes the execution and findings of a vanadiferous titanomagnetite exploration programme "The Mokopane Project" in the northern lobe of the Bushveld Complex near Mokopane, South Africa. The exploration activities were conducted by Frontier Platinum Resources (Pty) Ltd (Frontier) which is a project management company 100% owned by BRL.

The Mokopane project is considered to represent an "Exploration Project" which is inherently speculative in nature. However, MSA considers that the property has been acquired on the basis of sound technical merit. The property is also considered to be sufficiently prospective, subject to varying degrees of exploration risk, to warrant further exploration and assessment of its economic potential, consistent with the recommended programmes. The Mokopane project has evolved on the basis of a comprehensive review of historic data and systematic exploration since 2009 and MSA considers that the relevant areas have sufficient technical merit to justify further work and associated expenditure.

MSA has based its review on information provided by Frontier and its associates together with technical reports by Government agencies and other relevant published and unpublished data.

A site visit and inspection of Frontier's core handling and storage facilities at Mokopane was undertaken by Dr. Frieder Reichhardt on 12 May 2011. The visit included an examination of drillcore from five recently completed boreholes and an inspection of the Mokopane field office facilities. The Project area containing the mineralisation is characterised by flat topography and the continuous soil cover prevents an inspection of geological exposures.

The report has been prepared on the basis of information available up to and including 11 November 2011.

### **2.1 Scope of Work**

The purpose of the report is to collate and document the mineral deposit/resource, the quality and results of the work undertaken to date, and to make recommendations on appropriate further work programmes designed to advance the Mokopane Project to a potential commercial development.

This report may be included in future equity financing plans by BRL on the London Alternative Investment Market (AIM) to fund ongoing evaluation and development work for the Mokopane Project.



## **2.2 Principal Sources of Information**

Information and data in this report are derived from two Prospecting Rights (PR) granted by South Africa's Department of Mineral Resources (DMR), records of historical exploration conducted by the Council for Geoscience (CGS), a summary report prepared by consultant Peter Cheshire for Frontier and ongoing fieldwork over the permit area carried out on behalf of the current PR holders, Pamish Investments No.39 (Pty) Ltd (Pamish) and Afro Multi Minerals (Pty) Ltd (AMM). A listing of the principal sources of information is included at the end of this CPR.

MSA has endeavoured, by making all reasonable enquiries, to confirm the authenticity and completeness of the technical data upon which this CPR is based. A final draft of the report was also provided to BRL, along with a written request to identify any material errors or omissions prior to lodgement.

## **2.3 Qualifications, Experience and Independence**

MSA is an exploration and resource consulting and contracting firm, which has been providing services and advice to the international mineral industry and financial institutions since 1983. This report has been compiled by Dr. Frieder Reichhardt, who is a professional geologist with 25 years experience. He has been involved in the design, execution and management of exploration programmes and public reporting on various mineral deposit types and commodities. Dr. Reichhardt is a Principal Consulting Geologist with MSA, a Member of the German Geological Society, is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Fellow of the Geological Society of South Africa (GSSA).

The Mineral Resource Estimate (MRE) has been carried out by Michael Robert Hall, who is a professional geologist with 30 years experience in the management of exploration programmes, mineral resource and reserve estimations and public reporting on a wide variety of mineral deposit types and commodities. Mr. Hall is Consulting Geologist – Mineral Resources with MSA, a Member of the Australasian Institute of Mining and Metallurgy (AusIMM), is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Member of the Geological Society of South Africa (GSSA).

Peer review has been undertaken by Richard Wadley, who is a professional geologist with 40 years experience in mineral exploration within Africa and elsewhere internationally. Mr. Wadley is a consultant with MSA and is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Fellow of both the Southern African Institute of Mining and Metallurgy (SAIMM) and the Geological Society of South Africa (GSSA).

Neither MSA, nor the author of this report, has or has had previously, any material interest in BRL or the mineral properties in which BRL has an interest. Our relationship with BRL is solely one of professional association between client and independent consultant. This report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.



### **3 RELIANCE ON OTHER EXPERTS**

Information and data for this Project was sourced from:

- Peter Cheshire, Geological Consultant to Frontier
- Bushveld Resources Limited (BRL)
- Council for Geosciences (CGS)
- Set Point Laboratories and Genalysis Laboratory

Public domain information referenced in this report is listed in Section 21.

MSA has not independently verified, nor is it qualified to verify, the legal status of the Mokopane Prospecting Rights. The present status of tenements listed in this report is based on information and copies of documents provided by Frontier, and the report has been prepared on the assumption that the tenements will prove lawfully accessible for evaluation.

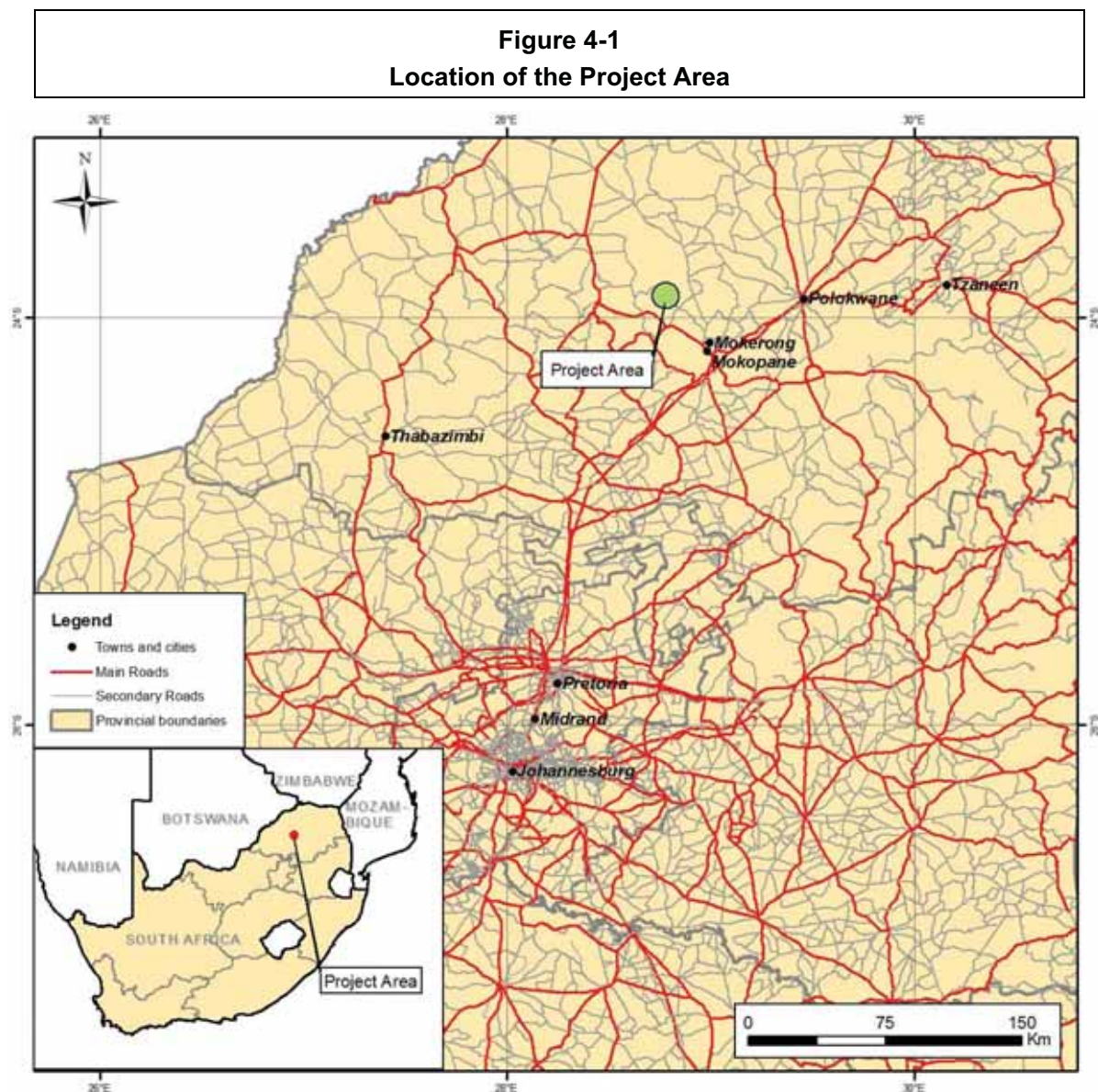
MSA is satisfied that the geological and geochemical information supplied can be used in the estimation of a Mineral Resource.

## 4 PROPERTY DESCRIPTION AND LOCATION

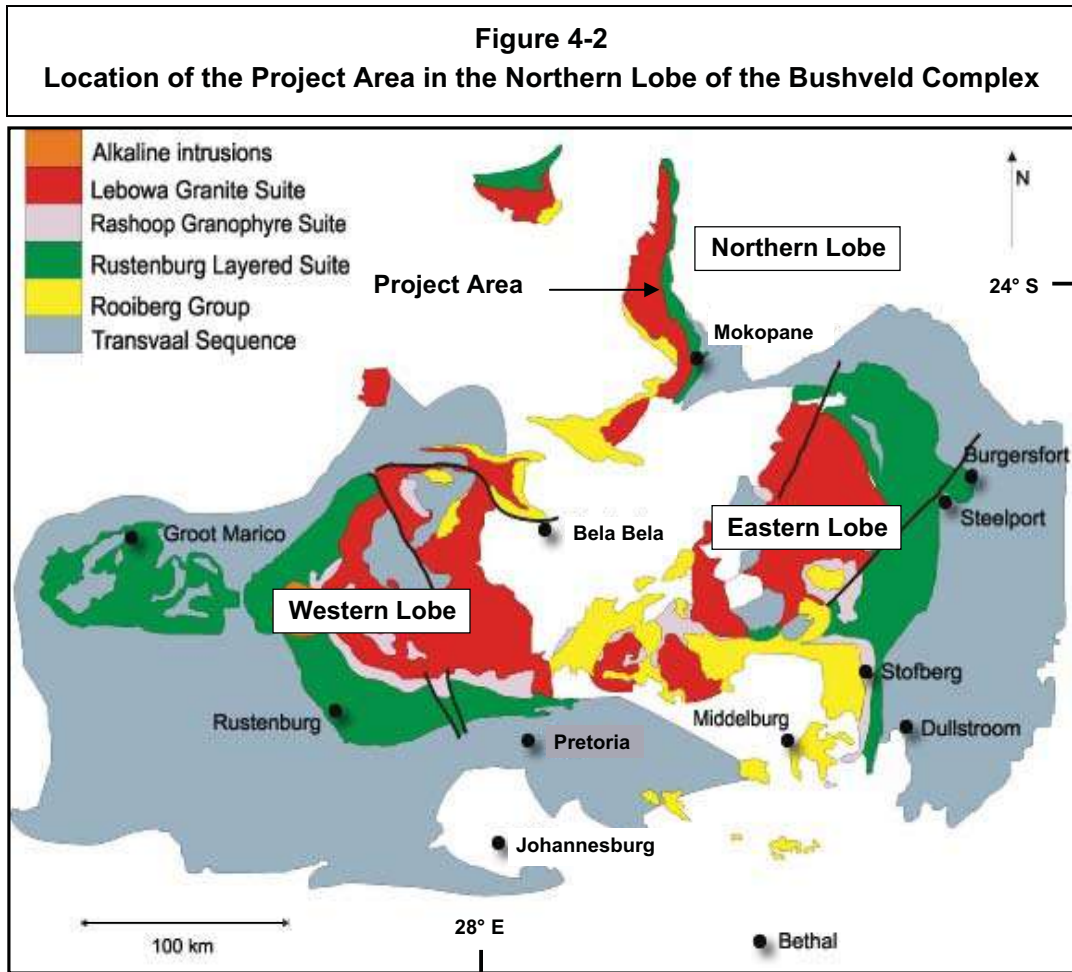
### 4.1 Location of the Prospecting Area

The Mokopane Ti-magnetite Project (the Project) is situated approximately 65 km west of Polokwane and 45 km north-northwest of Mokopane in the Mokopane District, Limpopo Province, South Africa (Figure 4-1).

The Project is located in the central portion of the Northern Lobe of the Bushveld Complex (Figure 4-2) and has been established on a group of four adjacent farms namely Vogelstruisfontein 765LR, Malokong 784LR, Vliegekraal 783LR and Vriesland 781LR.







The Project area described in terms of the two Prospecting Rights 95PR and 438PR consists of the following four farms (Figure 4-3):

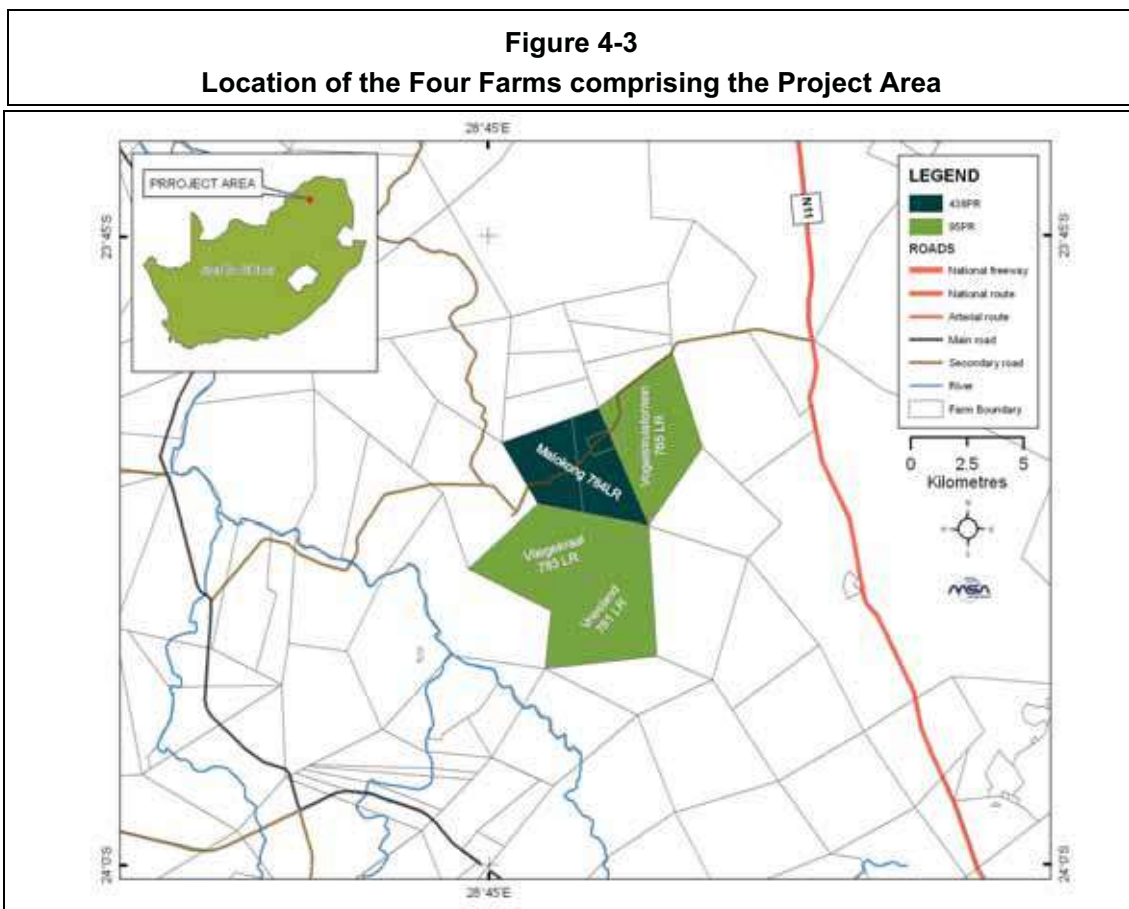
- Vriesland 781LR, Vliegekraal 783LR, Vogelstruisfontein 765LR (95PR) – 5545.5600 ha
- Malokong 784LR (438PR) – 1863.9378 ha

The four farms cover a total area of 7409.4978 ha and the coordinates of the corner points of the individual farms are given in Table 4–1 and are registered with the Deeds Office in Pretoria. The farms are located on the Government 1:50,000 topo-cadastral Sheet 2328DD published by the Chief Directorate, Survey and Mapping.

**Table 4-1**  
**Coordinates of the Corner Points of the Four Farms**

Farm Name (corner point)	Latitude (South)	Longitude (East)
Vriesland (NW)	-2644110.00	-22699.18
Vriesland (NE)	-2640372.17	-18355.43
Vriesland (SE)	-2646118.61	-18004.64
Vriesland (SW)	-2646658.43	-22964.70
Vliegekraal (NW)	-2639433.34	-23253.23
Vliegekraal (NE)	-2640372.17	-18355.43
Vliegekraal (SE)	-2644112.30	-22699.18
Vliegekraal (SW)	-2642255.74	-26364.14
Malokong (NW)	-2636729.21	-24872.02
Malokong (NE)	-2635214.37	-20574.98
Malokong (SE)	-2640372.17	-18355.43
Malokong (SW)	-2639433.34	-23253.23
Vogelstruisfontein (NW)	-2635214.37	-20574.98
Vogelstruisfontein (NE)	-2632743.98	-17312.38
Vogelstruisfontein (SE)	-2636929.69	-15961.82
Vogelstruisfontein (SW)	-2640372.59	-18353.36

South African National Coordinate system, central meridian Lo29° with WGS84 ellipsoid and Hartbeeshoek Datum



## 4.2 Mineral Rights over the Prospecting Area

Mineral tenure in South Africa is governed by the regulations of the Mineral & Petroleum Resources Development Act, 2002 (MPRDA). The following Prospecting Rights (PR) were granted in terms of Section 16 of the MPRDA and constitute the Project (Table 4–2):

- **95PR** covering the farms Vriesland 781LR, Vliegekraal 783LR and Vogelstruisfontein 765LR is granted for iron ore, vanadium, titanium, nickel, copper, cobalt, chrome, platinum group metals, gold and all minerals that may be found in intimate association with the latter
- **438PR** covering the farm Malokong 784LR is granted for iron ore, titanium, nickel, copper, cobalt and platinum group metals

Company	BRL Interest (%)	Farm Names	Minerals	Area (ha)	PR No.	Status
Pamish Investments No 39 (Pty) Ltd	64%	Vogelstruisfontein 765LR, Vriesland 781LR and Vliegekraal 783 LR	Platinum Group Metals, Cobalt, Copper, Nickel, Chrome, Iron Ore, Vanadium, Titanium and all minerals that may be found in intimate association with the latter	5545.5600	95PR	Right renewed on 30/05/2011 for 3 years
Afro Multi Minerals (Pty) Ltd	55%	Malokong 784 LR	Copper Ore, Cobalt, Nickel, Iron Ore, Titanium Ore and Platinum Group Metals	1863.9378	438PR	Renewal Application submitted; Section 11 Application to be submitted upon approval of renewal

Prospecting Right **95PR** was initially granted for a period of 5 years to Izingwe Capital (Pty) Ltd on 19 November 2005 and transferred to Pamish Investments No. 39 (Pty) Ltd (Pamish) in terms of Section 11 of the MPRDA. The approval of a Section 11 transfer was granted on 27 July 2009 and an application for renewal for a further three year period has been submitted by Pamish in terms of Section 18 of the MPRDA. The application was acknowledged by the Department of Mineral Resources (DMR) in a letter dated 14 January 2011.

Prospecting Right **438PR** was granted on 7 March 2007 for an initial period of 4 years to Afro Multi Minerals (Pty) Ltd (AMM). On 3 March 2011 AMM submitted a renewal application in terms of Section 18 for a further period of 3 years which is currently pending with the DMR. A Section 11 application to transfer the Prospecting Right to Pamish is planned but can only be submitted to the DMR after the Section 18 has been granted.

The status of tenements is based on information and copies of documents provided by Frontier. MSA has not independently verified, nor is it qualified to verify, the legal status of the Prospecting Rights and assumes that the Mokopane project will prove lawfully accessible for further exploration.

### 4.3 Surface Rights

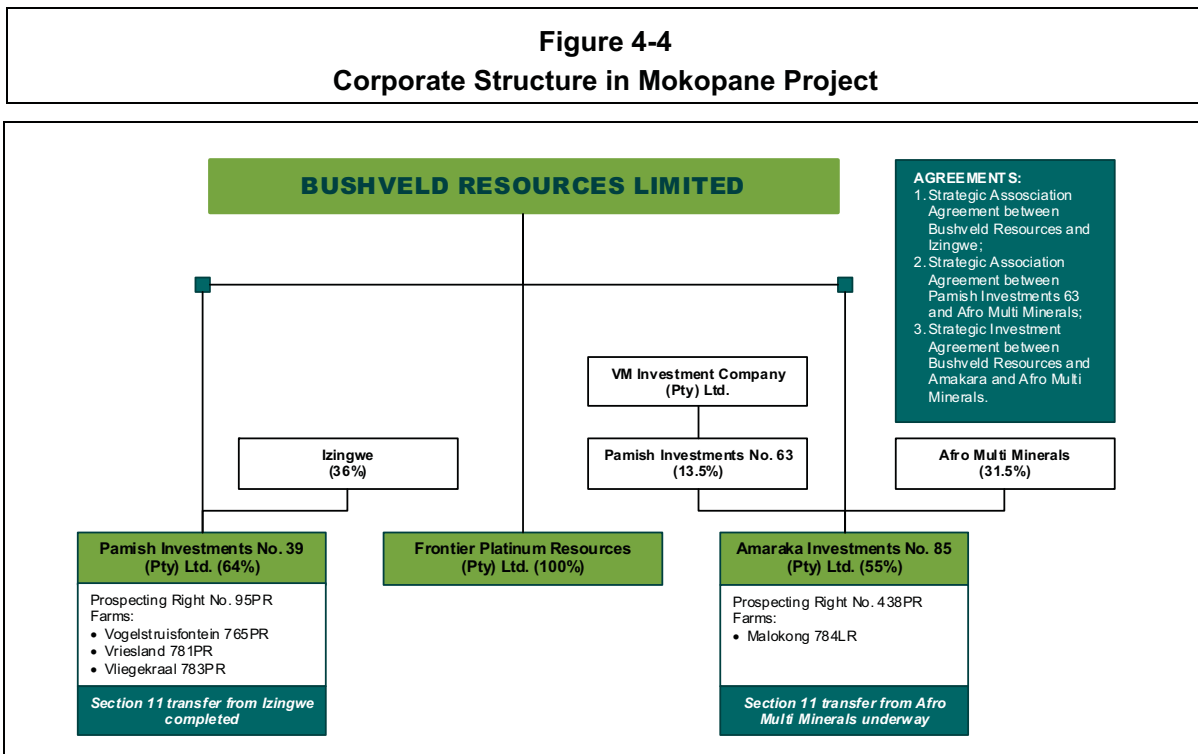
The surface rights to the four farms belong to the Langa Bakenberg community and the Department of Land Affairs. Consultation with interested and affected parties has been conducted in accordance with Section 16(4) of the MPRDA and is adequate for the level of current exploration activities. No objections to the intended prospecting were received from the surface owners and the land is currently used for grazing livestock and limited arable farming.

### 4.4 Mineral Resource

The mineral resource is vanadiferous Ti-magnetite (VTM) which occurs as multiple massive to semi-massive layers and in disseminated form in the gabbroic rocks of the Upper Zone of the Northern Lobe of the Bushveld Complex. No historical mineral resource calculations or mining of the mineralisation underlying the Project area has been conducted.

### 4.5 Issuer's Interest

The holding structure of the Mokopane Project, as of the effective date of this report, is shown in Figure 4-4.





#### **4.6 Royalties**

MSA is not aware of any existing or future royalty agreements pertaining to the Mokopane Project.

#### **4.7 Environmental Liabilities**

An Environmental Management Plan (EMP) was submitted in 2004 by the then Prospecting Rights holder Izingwe and approved by the Department of Mineral Resources (DMR) with respect to the farms Vriesland 781LR, Vliegekraal 783LR and Vogelstruisfontein 765LR. The original EMP was submitted by Pamish and approved by the DMR as part of the PR renewal application. An amended EMP can be lodged with the DMR to accommodate the planned exploration activities.

An EMP pertaining to the farm Malokong 784LR (438PR) was submitted by AMM and approved by the DMR in 2005. The exploration activities on 438PR are currently compliant with the approved EMP which does not need to be amended at this stage. MSA is not aware of any existing environmental liabilities on the two PR areas.

A financial provision for rehabilitation for ZAR 3 000 for 95PR and ZAR 10 000 for 438PR has been paid to the DMR in February 2005 and June 2007, respectively.

An environmental compliance report for 95PR was submitted to the DMR in August 2010 and a compliance audit was conducted by the DMR in October 2010. No areas of non-compliance with the approved EMP were identified.

The DMR carried out a site inspection on 438PR in November 2010. No environmental compliance issues were identified by the DMR because AMM's exploration programme consisted exclusively of data review and desk-top studies and no invasive field activities were conducted.

#### **4.8 Permits**

From information provided by Frontier, MSA accepts that all necessary permits to carry out the proposed exploration activities have either been obtained, or are expected to be obtained without undue difficulty.

## **5 ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES AND INFRASTRUCTURE**

### **5.1 Access**

The Project area lies approximately 45 km north-northwest of the town Mokopane in the magisterial Districts Mokopane and Mokerong 2 of the Limpopo Province, Republic of South Africa. Primary access to the project area is via a tarred road linking Mokopane and the village of Bakenberg and secondarily through a tarred road (main access to Malokong and Vogelstruisfontein farms) connecting with the N11 to Mokopane (Figure 4-3). This access is enhanced by a good network of secondary gravel roads and tracks that exist within the area.

### **5.2 Climate**

The Project area is at an elevation of about 1000 m above sea level and has a semi-arid climate. Average temperatures reach around 21–22 °C (70–72 °F) in January and fall to 11 °C (52 °F) in July. The area has a dry climate with a summer rainy season and a pronounced dry spell during winter. Average annual rainfall is 495 mm (19.5 in), with December and January the wettest month and July the driest.

### **5.3 Physiography**

The area is characterised by flat lying to gently sloping ground punctuated by a series of northerly trending hills in the east and the higher plateau of Bushveld granite to the west. Drainage is from NNE to SSE via the seasonal Borobela River and its weak tributary network.

The area is classified as vegetation zone SVcb 20, Makhado Sweet Bushveld (Mucina and Rutherford, 2006). The hill areas are bush covered and flat lying areas support a mixture of bush and cultivated fields. Soil cover varies from thin brown residual soils with bedrock outcrop in the east, thick (>5 m) residual and transported “black turf” soils along the broad valley of the Borobela River in the central portions and red residual soils in the west.

Land use is dominated by traditional grazing with summer dryland subsistence agriculture and is generally in a degraded condition.

### **5.4 Local Resources and Infrastructure**

The project area is approximately 260 km NNE of Johannesburg and easily accessible through a tarred road network and in close proximity (about 10 km) to two mature opencast platinum mines (Anglo Platinum / Anooraq).

The closest railway link is at Mokopane, to the line connecting Polokwane (65 km east of the Project area) to Johannesburg and other major centres.



Water resources include groundwater and a weak river network of which the seasonal Borobela River forms the major river within the project area and is occasionally in flood during November to February. The ground water table in the greater area is on average 20 m below surface (Schutte, 1980).

Electricity can be supplied through the parastatal power supply company Eskom.

The greater project area has a long history of mining going back to 1926 when mining of the Platreef for platinum group metals (PGM) started. The large-scale Platreef opencast Mogalakwena Mine is situated approximately 10 km to the south-east of the project area and has been operated by Anglo American since 1993. The Boikantsho Platreef project, jointly owned by Anoroaq Resources and Anglo American, is at the pre-feasibility stage and approximately 10 km north-east of the Mokopane project.

## 6 HISTORY

The Project area is situated within the Northern Lobe of the Bushveld Complex (BC) which is dated at 2055 Million years (Ma) and lies within the north-central Kaapvaal Craton as a series of interconnected intrusives comprising an ultramafic-mafic succession of layered rocks known as the Rustenburg Layered Suite (RLS), a series of quasi-contemporaneous granitic rocks (Lebowa Granite Suite) and felsic extrusive rocks (Rooiberg Group). The ultramafic-mafic layered rocks of the RLS outcrop in three main arcuate areas referred to as the Eastern, Western and Northern Lobes.

The Northern Lobe of the BC has a strike length of about 110 km and has long been known and exploited for its platinum-rich Platreef but the massive and disseminated Ti-magnetite layers, although well documented from the Eastern and Western Bushveld Lobes, received relatively little attention. The first detailed investigations were carried out in the 1970s and included mapping, ground geophysics, trenching and limited drilling in the area immediately south to the Mokopane project.

The early work in the 1970s and subsequent exploration in the past decade in the Northern limb focussed mainly on the Main Magnetite Layer (MML) because of its high vanadium content. The MML contains about 1.6%  $V_2O_5$ ; it has been mined at the Mapochs Mine in the Eastern Bushveld since the 1950s and processed at the Steelworks (EVRAZ-owned Highveld Steel & Vanadium) at Emalahleni (formerly known as Witbank) into vanadium, pig iron and steel products.

The strong global demand for iron ore has prompted a shift towards exploring various other Ti-magnetite layers as a potential source for pig iron rather than vanadium.

The P-Q Zone containing the uppermost P and Q Ti-magnetite layers does not outcrop and is commonly covered by red-coloured Ti-magnetite-rich soil. The P-Q Zone was a largely unknown feature in the Project area prior to the current exploration programme.

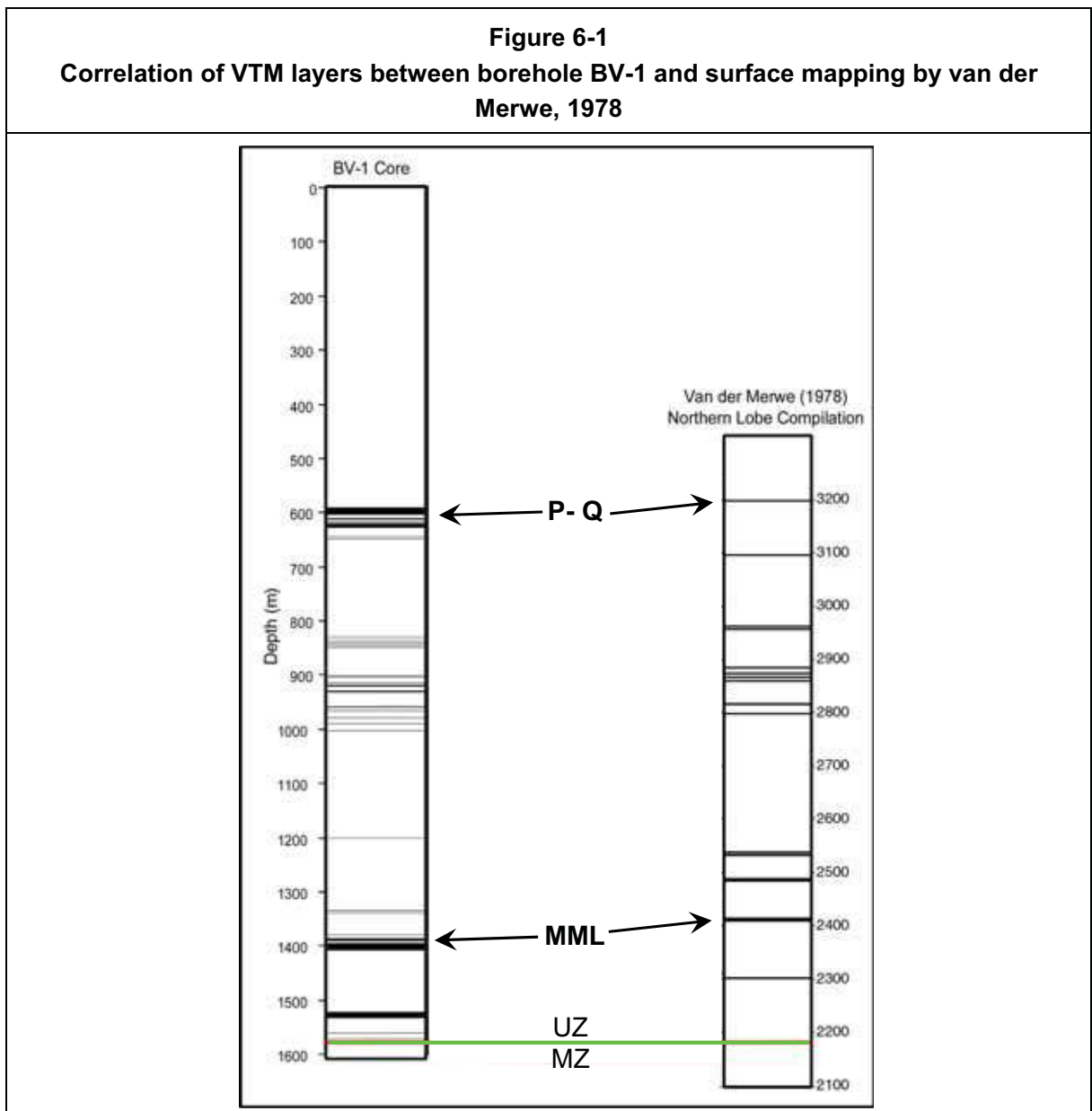
### 6.1 Early Work

The project area has not been previously explored for its Ti-magnetite potential but was covered by a regional geochemical soil sampling and mapping programme by the Council for Geoscience (CGS). The latter was published in 1985 at 1:250 000 scale as the 2328 Pietersburg Geological Series map. The soil sampling was conducted at 1km intervals and the samples were analysed by XRF and ICP-MS for over 40 elements including  $Fe_2O_3$ , V,  $TiO_2$ , Cu and Ni. Significant vanadium and titanium anomalies occur and generally coincide with areas mapped as Upper Zone of the Bushveld Complex and known to contain numerous semi-massive and massive Ti-magnetite layers and strongly disseminated Ti-magnetite zones interlayered in Ti-magnetite gabbros and gabbronorites.

A regional aeromagnetic and radiometric survey was conducted in the 1990s and processed by the CGS. The data shows prominent northerly-trending magnetic anomalies which have been correlated with the two most magnetite-rich stratigraphic units, which in turn host groups of individual magnetite seams namely the Main Magnetite Group and the P-Q Magnetite Group.



A stratigraphic borehole BV-1 was drilled in 1991 on the farm Bellevue some 2 km south-west of the project area. The hole covered the entire Upper Zone stratigraphy and intersected 32 discrete layers of Ti-magnetite or Ti-magnetite-rich rock (>20% opaque minerals) ranging in thickness between 7 cm and 13 m (Ashwal et al., 2005). Figure 6-1 shows the correlation of the layers in BV-1 with the 20 Ti-magnetite seams identified by van der Merwe (1978) during his regional mapping of the Northern Lobe. Most prominent of the semi-massive Ti-magnetite layers is the uppermost Q Layer, which has a thickness of 13 m, and an approximately 8 m thick vanadium-enriched layer with variable Ti-magnetite content. The latter is some 175 m above the base of the Upper Zone (Figure 6-1) and can be correlated with the Main Magnetite Layer (MML).

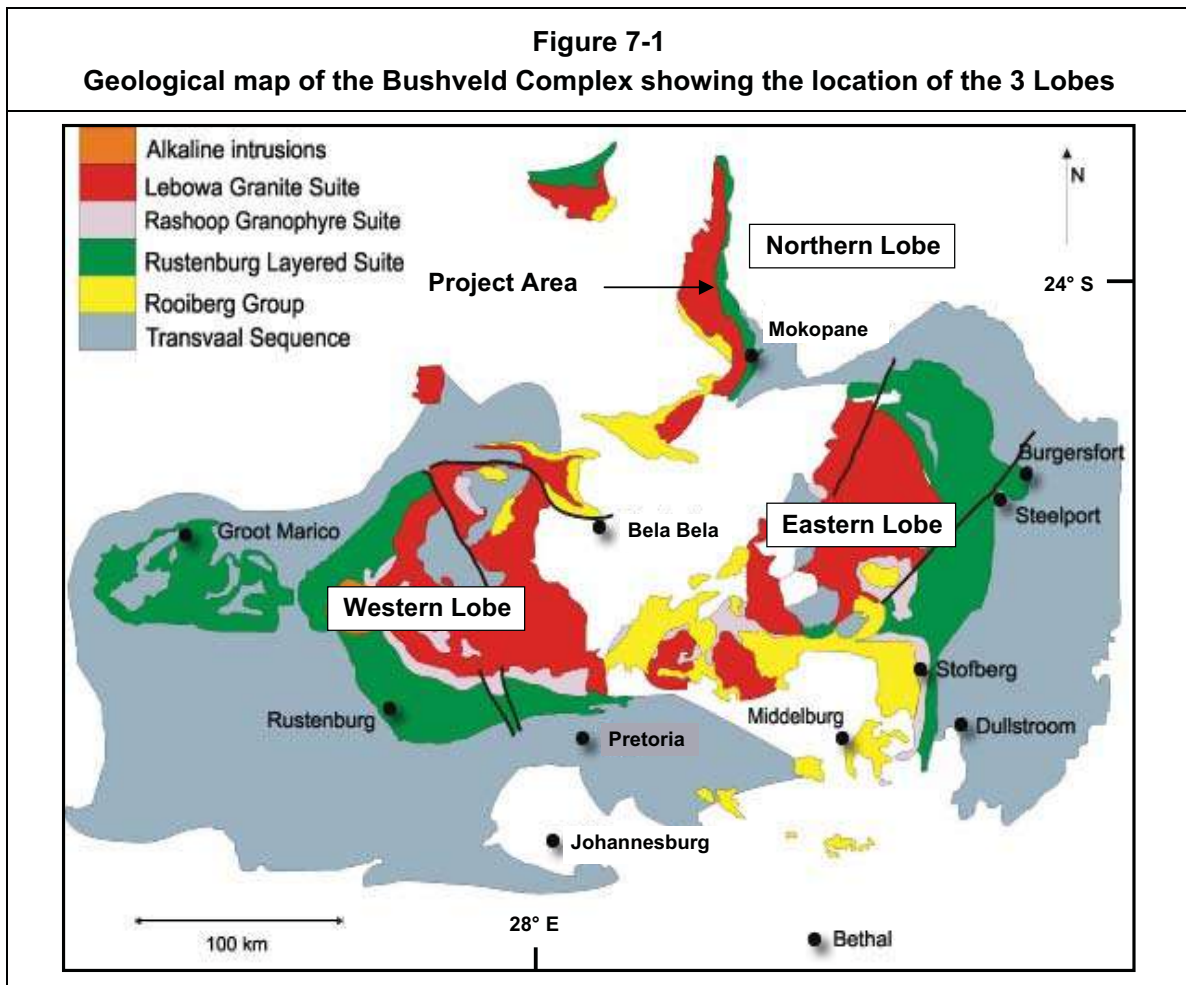


## 7 GEOLOGICAL SETTING

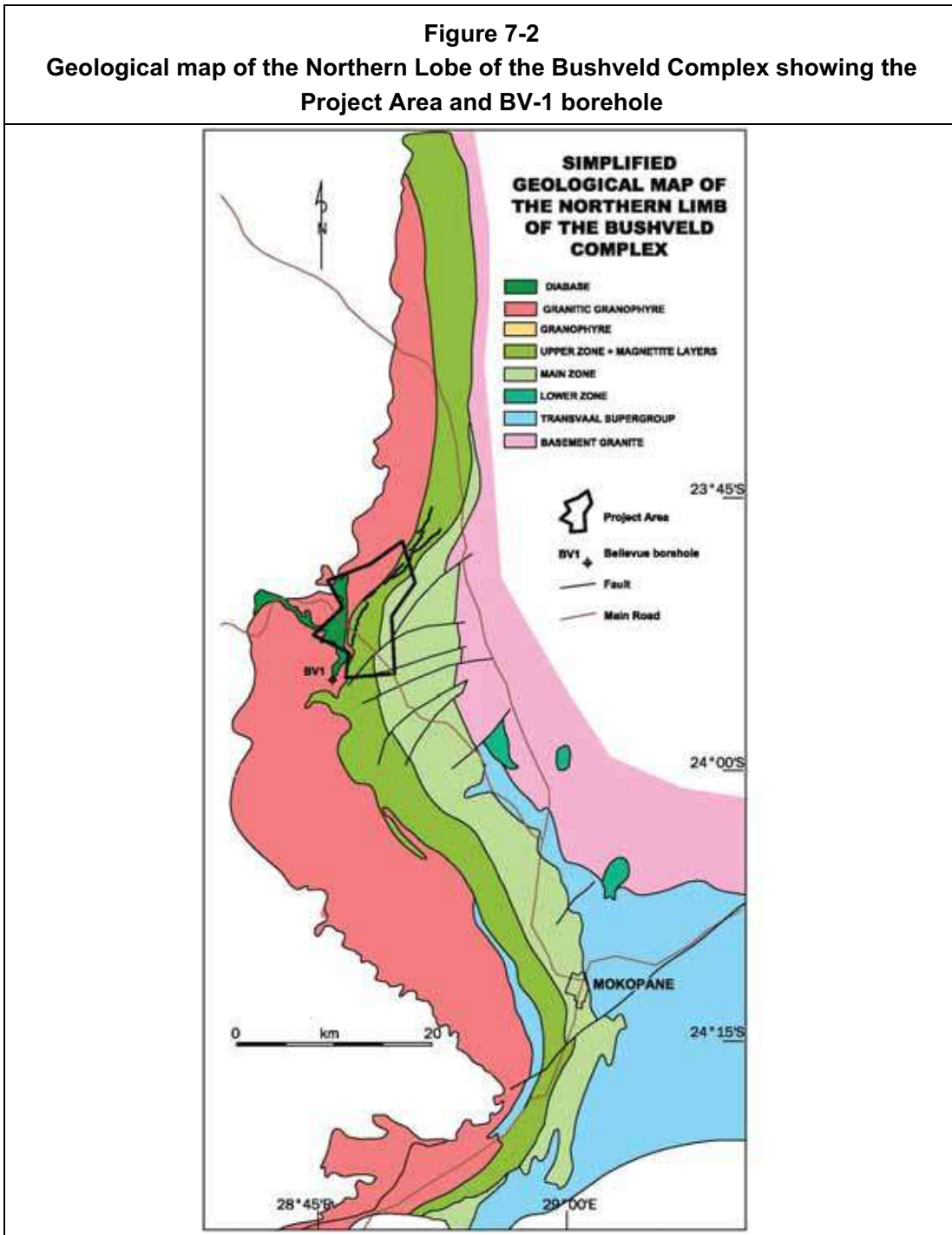
### 7.1 Regional Geology

The ultramafic-mafic Rustenburg Layered Suite (RLS) of the Bushveld Complex occurs in the Eastern, Western and Northern Lobe (Figure 7-1) and varies in thickness from less than 5 km to a maximum of 8 km and is stratigraphically divided into five units:

- Marginal Zone, dominated by norites
- Lower Zone (LZ), consisting of an alternating series of dunite and harzburgite
- Critical Zone (CZ), comprising cyclic units of chromitite, pyroxenite, norite and anorthosite. The Lower Group chromitite layer LG6 and the Middle Group chromitite layer MG1 are mined for their chromite content while the Upper Group chromitite layer UG2 and the Merensky Reef are exploited for their platinum group element (PGE) concentrations
- Main Zone (MZ), containing gabbro norites and anorthosites and minor pyroxenite
- Upper Zone (UZ), dominated by gabbroic rocks with intercalated anorthosite and magnetite-rich layers



The Project area is situated within the Northern Lobe of the Bushveld Complex (Figure 7-1) and covers the top portion of the Main Zone (MZ) and the entire Upper Zone (UZ). The latter is approximately 1 250 m thick and dips gently with 15° to 25° to the west. The UZ is characterised by the pervasive occurrence of vanadiferous titanomagnetite (VTM) present in disseminated form in highly variable amounts (1% to >20%) and as semi-massive and massive layers (>90%) of variable thicknesses.



The ultramafic and mafic rocks of the RLS in the Project area lie on Archaean Basement granite and gneiss to the east and are overlain by Bushveld granite sills (Lebowa Granite Suite) and younger post-Bushveld Waterberg Group and Quaternary cover rocks to the west (Figure 7-2).

The Upper Zone consists of numerous cyclic units of alternating and well-layered rocks and is subdivided into three Subzones (Table 7-1) based on the presence of modal olivine in rocks of Subzone B and modal apatite in Subzone C. The rocks show remarkable continuity and individual layers can generally be traced along strike for tens of kilometres.

<b>Suite</b>	<b>Zone</b>	<b>Subzone</b>	<b>Unit</b>
Lebowa Granite Suite			Nebo Granite (Mn)
Rustenburg Layered Suite	Upper Zone	Subzone C	Molendraai Magnetite Gabbro (Vmo)
		Subzone B	
		Subzone A	
	Main Zone	Upper Subzone	Mapela Gabbronorite (Vm)
		Lower Subzone	
	Critical Zone	Upper Subzone	Grasvally Norite-Anorthosite (Vro)
		Lower Subzone	
	Lower Zone	Upper Pyroxenite Subzone	Zoetveld Subsuite (Vz)
		Harzburgite Subzone	
Lower Pyroxenite Subzone			

A comparison between borehole BV-1 on the farm Bellevue and the sequence intersected in boreholes on the farms Vliegekraal and Vriesland also shows very good down-dip continuity (Section 7.3.1).

## **7.2 Correlation of Ti-Magnetite Layers**

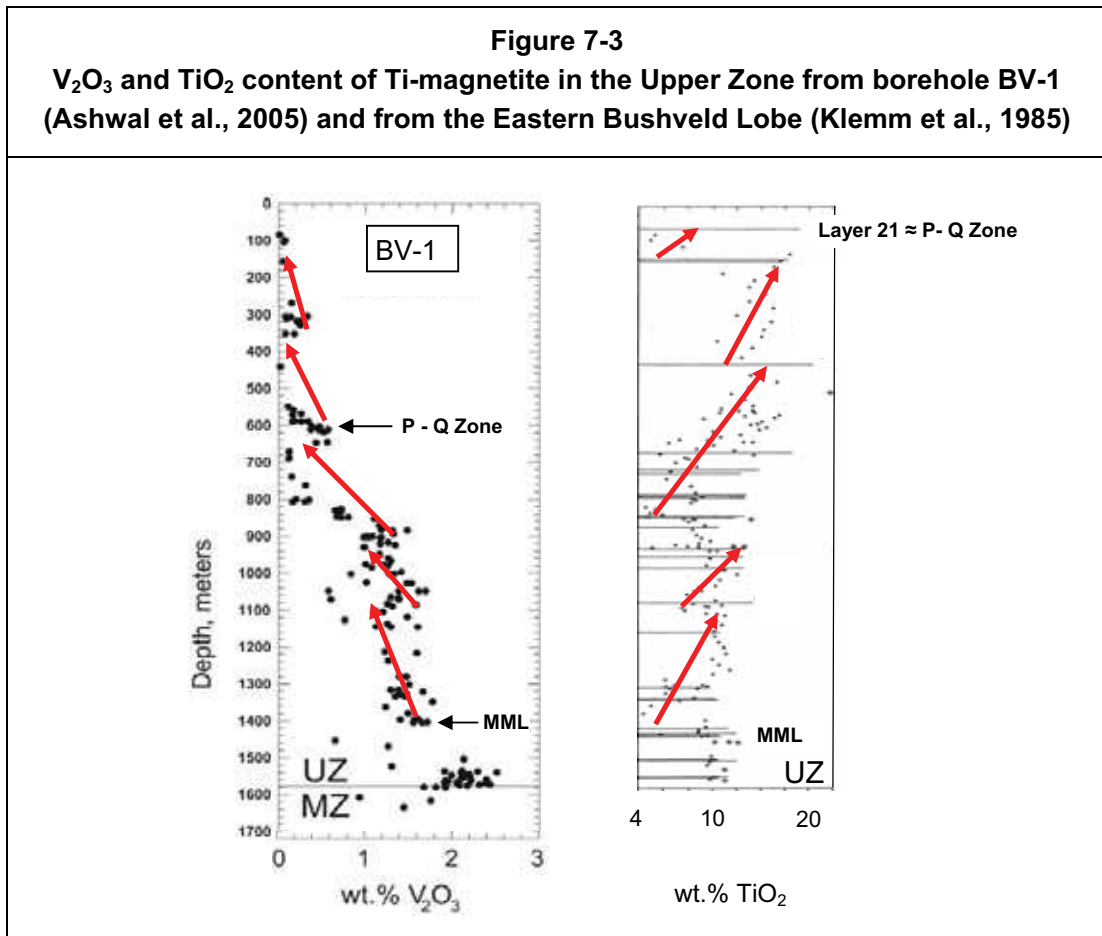
The variability and gradational nature of VTM abundance within individual layers and across their upper and lower contacts create obvious ambiguities when comparing the widths of individual layers between boreholes unless a cut-off for the amount of VTM is consistently applied and reported. This has not been done by previous workers and it must be noted that visual estimates of total VTM content are inherently unreliable.

A definitive correlation of individual VTM layers is further compromised by the fact that virtually all layers are composite units. The layers invariably contain relatively VTM-poor (<30%) sections, or partings, and have mostly gradational hanging wall contacts with sharp foot wall contacts which have resulted in rather arbitrary definitions of the thicknesses of the various VTM layers. The latter features prompted Molyneux (1970, 1974) and von Gruenewaldt (1973) to conclude that VTM layers in the Eastern Limb show considerable variation in thickness and Ti-magnetite concentration both vertically and along strike.

By convention, VTM-rich layers in the Eastern Lobe are simply referred to by their order of stratigraphic occurrence (Layer 1 to 21). Barnes and co-workers (2004), who referred to the

layers intersected in borehole BV-1 by letters A to R, did not attempt a direct correlation between the VTM layers of the Northern Lobe with those of the Eastern and Western Lobes.

It is important to note that VTM shows a decrease in  $V_2O_5$  and simultaneous increase in  $TiO_2$  (Figure 7-3) in a cyclical manner from the base to the top of the Upper Zone (UZ). This antipathetic behaviour of V and Ti has been well documented (Klemm et al., 1985; Cawthorn and Molyneux, 1986; Ashwal et al., 2005) and the  $TiO_2$  and  $V_2O_5$  ratios can be used to broadly identify and correlate individual groups of VTM layers.



Note:  $V_2O_3$  has been determined by electron microprobe analysis of Ti-magnetite grains and the vanadium concentrations are not comparable with whole rock vanadium contents. Solid lines in the  $TiO_2$  plot indicate the position and  $TiO_2$  content of VTM layers

Layer 21 in the Eastern Lobe and the P and Q Layers in the Northern Lobe occur at equivalent stratigraphic positions. The massive portions of Layer 21 and the P and Q Layers have the highest  $TiO_2$  (18% to 22%) and the lowest  $V_2O_5$  (0.1% to 0.3%) of all VTM layers of the UZ. Layer 21 and Layer Q attain thicknesses well in excess of 10 m and consist of massive to semi-massive VTM units with relatively sharp basal contacts with the intercalated feldspar-rich intervals. Similarities in the position, chemical composition and overall appearance between the vanadium-rich Main Magnetite Layer (MML) in the Eastern Lobe (e.g. at Mapochs Mine) and the Main Group VTM layers in the Northern Lobe (Schutte, 1980) strongly suggest that these layers are stratigraphic equivalents, despite their considerable geographic separation (>150 km).

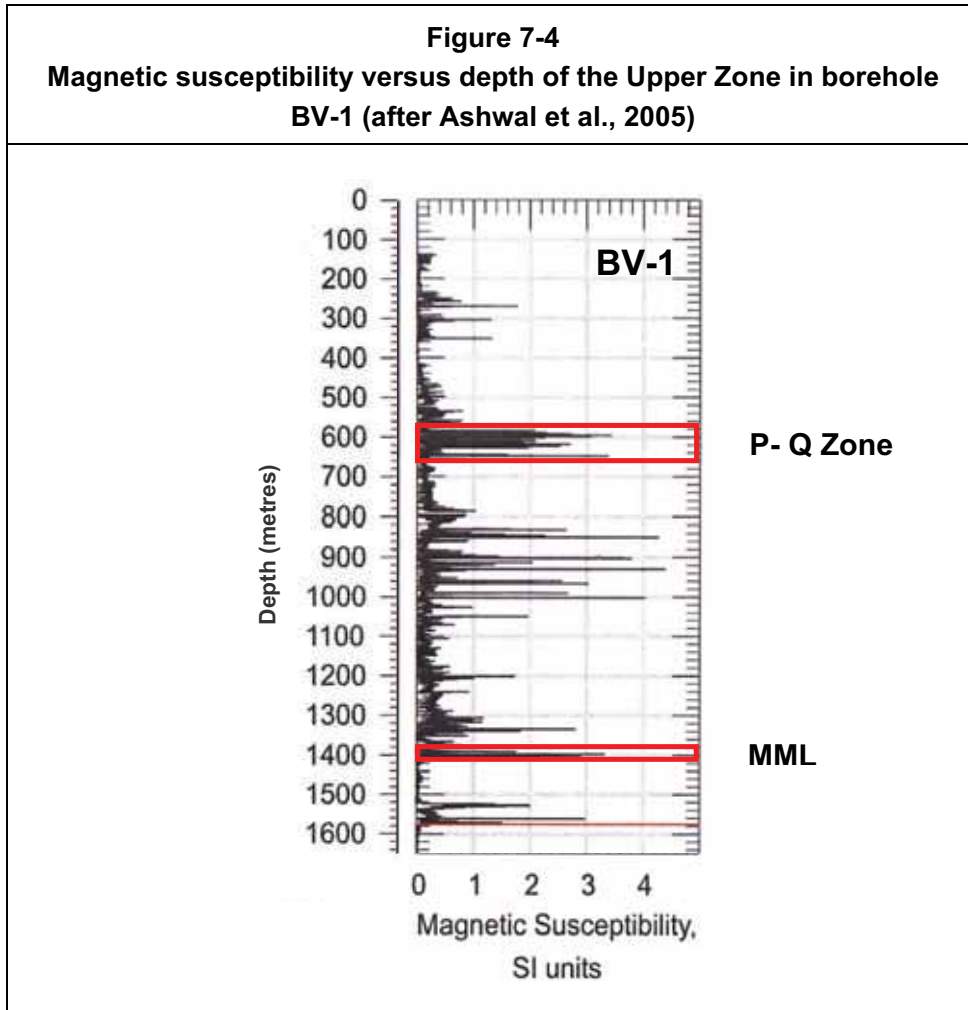
## 7.3 Local Geology

### 7.3.1 General

The Upper Zone of the Rustenburg Layered Suite in the Project area consists of gabbronorite, gabbro, Ti-magnetite gabbro (ferrogabbro), olivine-diorite, ferro-diorite, anorthosite and minor norite and contains intervals of disseminated, semi-massive and massive vanadiferous Ti-magnetite (VTM). These VTM-rich intercalations vary in thickness and VTM content and occur at irregular intervals in the lower half of Subzone A, the lower and upper third of Subzone B and are virtually absent in the apatite-bearing ferro-diorite of Subzone C (Table 7-2).

Upper Zone Stratigraphic Unit	Bellevue Farm Borehole BV-1			General Mining / VanMag Mozambique Farm Ref Boreholes BH M7 and BH M8			Frontier Drilling 2010 and 2011 on Vliegekraal & Vriesland Farms Ref. Boreholes VK1, VK2, VK3, VL2, VL3						
	Ti-Magnetite Layers (Massive) Numbering A - R after Barnes et al. (2004)	Thickness m	Distance HW contact above Upper/Main Zone Contact m	Ore Unit	Ore Subunits	Thickness m	Ti-Magnetite Layers and units	Thickness m					
Subzone C	<b>R</b>	0.83	1271	No Data	No Data	No Data	<b>R</b>	0.4					
Subzone B	Apatite-bearing ferro-diorite						No Data	No Data	No Data	P-Q HW Disseminated Zone			
	P-Q HW Disseminated Zone		1011							P-Q HW Disseminated Zone		20 - 44 m	
	<b>Q</b>	13.03	985							<b>P - Q Zone</b>		12 - 20 m	
	Magnetite gabbro middling	7.22	972							Magnetite gabbro middling			
	<b>P</b>	0.60	965							<b>P</b>		8 - 17 m	
	P-Q FW Disseminated Zone		949							P-Q FW Disseminated Zone			
	<b>N and O</b>		0.46							932	<b>N and O</b>		0.5
	<b>M</b>		0.07							745	<b>M</b>		3.1
	<b>L</b>		0.70							726	<b>L</b>		1.1
	<b>K</b>		0.14							675	<b>K</b>		Not intersected
<b>J</b>		0.18	673				<b>J</b>		Not intersected				
<b>I</b>		0.50	646				<b>I</b>		0.5				
<b>H</b>		0.29	574	<b>H</b>		0.3							
<b>G</b>		0.05	527	<b>G</b>		Not intersected							
Subzone A	Magnetite gabbro and <b>F</b>	34.0	274	<b>Upper Magnetite Group</b>	<b>Top Zone</b>	18.7	<b>F</b>	1.0					
					Ferrogabbro middling		Magnetite gabbro middling	16.6					
					<b>Mid Zone</b>		Unnamed magnetite layer	0.4					
					Ferrogabbro middling		Magnetite gabbro middling	3.6					
	<b>E</b>	0.05		<b>Bottom Zone</b>	<b>E</b>	0.2							
	Magnetite gabbro and anorthosite	45.0	239	Ferrogabbro and anorthosite		46	Magnetite gabbro and anorthosite	71.9					
	Magnetite gabbro and <b>D</b>	17.40	196	<b>Main Magnetite Group</b>	<b>Upper Marker</b>	1.1	<b>Upper Marker</b>	1.5					
					Ferrogabbro	6.7	Ferrogabbro	8.2					
					<b>Lower Marker</b>	<1	<b>Lower Marker</b>	1.2					
					Ferrogabbro	6.3	Ferrogabbro	5.8					
<b>Main Magnetite Layer</b> (magnetite layers <b>B &amp; C</b> and anorthositic middling)	6.40	179	<b>MML</b>	<b>Main Magnetite Layer</b> (2 magnetite layers with anorthositic middling)	7.5	<b>Main Magnetite Layer</b> (2 magnetite layers with anorthositic middling)	7.42 - 8.24						
Anorthosite and magnetite gabbro	158.2	173	Ferrogabbro and anorthosite		120	Anorthosite and magnetite gabbro	No Data						
			<b>Lower Magnetite Group</b>	Magnetite anorthosite	20								
<b>A</b>	0.30	14				Not intersected	Not intersected						

The stratigraphic position of the individual VTM layers is shown in Figure 6-1 and their thicknesses are given in Table 7-2. The variable VTM content in the Upper Zone (UZ) is probably best documented by the magnetic intensity of the various rocks. Figure 7-4 shows the magnetic susceptibility variations in the UZ and highlights the particularly high VTM concentrations associated with the semi-massive to massive Main Magnetite Layer (MML) and the P-Q Layers.



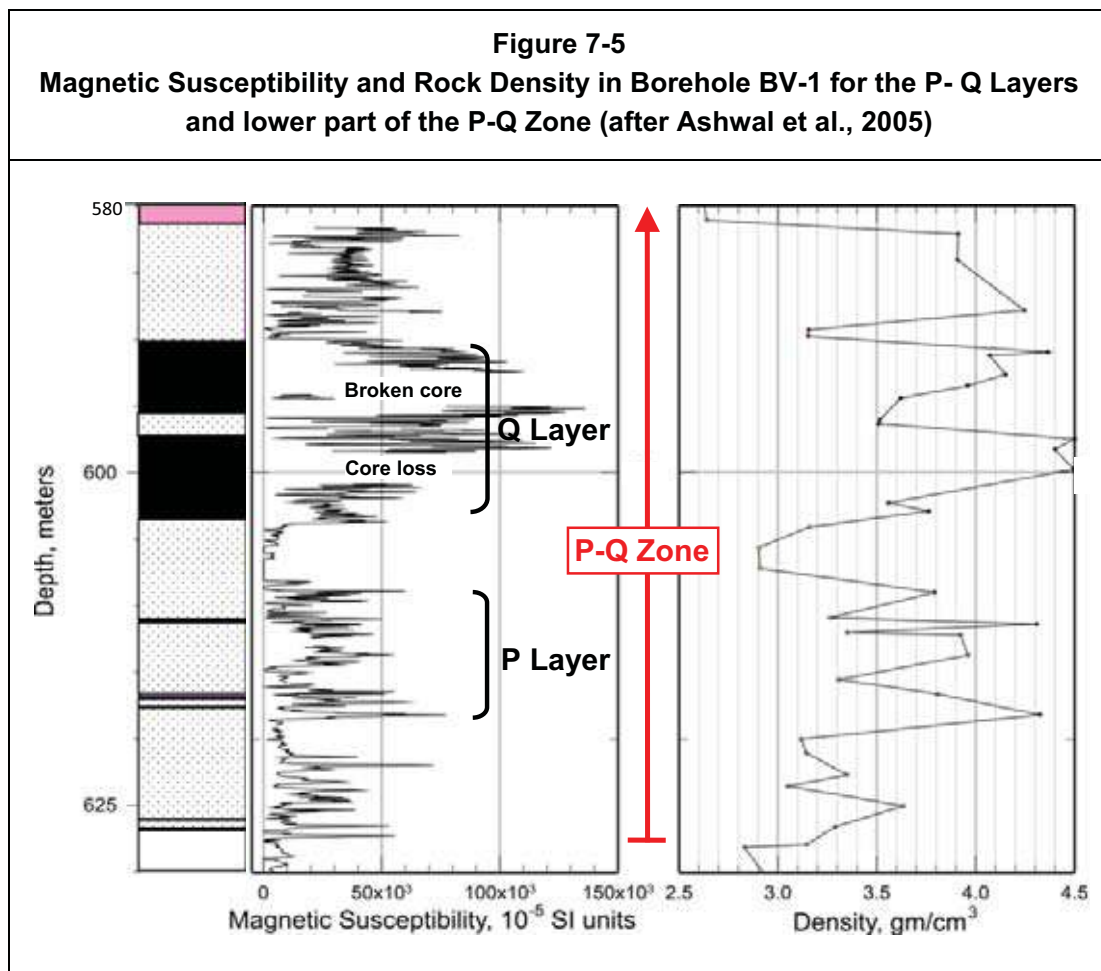
Note: Magnetic susceptibility measurements were collected every 2 cm on the Bellevue BV-1 drillcore

### 7.3.2 P-Q Ti-Magnetite Layers

This approximately 25 m thick VTM-rich interval was intersected in BV-1 and consists of the two semi-massive to massive VTM layers P and Q which are separated by a  $\pm 7$  m thick “parting” of Ti-magnetite gabbro and anorthosite. Magnetic susceptibility and density measurements on BV-1 drill core were conducted by Ashwal and co-workers (2005) and the results are shown in Figure 7-5. The semi-massive to massive P and Q Layers show generally high magnetic susceptibility values with considerable internal fluctuations in their VTM content. They generally have gradual contacts with foot- and hanging wall rocks, as illustrated in Figure 7-5.

The P-Q Layers in the Project area occur in the wide, soil-covered plains between the Main Zone lithologies forming a range of hills to the east and the Nebo granite plateau to the west and are therefore not easily recognised in the field other than by the presence of a distinctive reddish-brown soil containing abundant Ti-magnetite. This could explain why this prominent group of VTM layers has not been recorded in the Project area and why the overall width has been grossly underestimated by previous workers (e.g. van der Merwe, 1978).

The P-Q Layers have been intersected in 10 boreholes in the Project area and range in apparent thickness from 15 m to 27 m including the generally VTM-poor parting between the two layers. The foot- and hanging wall lithologies of the P-Q Layers do contain considerable amounts of disseminated Ti-magnetite and increase the total thickness of the wider P-Q interval (the P-Q Zone) to between 40 m and 80 m. This Zone constitutes the uppermost and dominant mineralised entity which has been assessed in this study.



Note: Magnetic susceptibility measurements were collected every 2 cm on the Bellevue BV-1 drillcore. Density measurements were made at depth intervals of 1.7 m using core lengths of about 15 cm.

Black: Ti-magnetite-rich layers; White stippled: Ti-magnetite gabbro, Ti-magnetite leucogabbro; White: anorthosite and leuconorite; Pink: Granitic sill or dyke (top of profile)



### 7.3.3 Main Ti-Magnetite Group

This group of VTM layers in the lower portion of the Upper Zone was first investigated by Ruighoek Chrome Mines (Pty) Ltd south of the Mokopane project between 1969 and 1970. During 1979 and 1980, the State-owned Mining Corporation Ltd completed geological mapping, magnetic surveys, and drilling over the five contiguous farms Gezond, Commandodrift, Molendraai, Mozambique (Portion 2) and Inhambane bordering the Mokopane Project to the south.

The results were summarised and published by Schutte (1980) who grouped the VTM layers in the 250 m thick, basal portion of the Upper Zone into a Lower, Main and Upper Group, according to their relative stratigraphic position. The latter two Groups include several near-massive layers (75 - 88 weight percent Ti-magnetite) while the Lower Group consists of a 18 m to 25 m thick succession of predominantly feldspar-rich rocks which contain between 10% and 50% disseminated Ti-magnetite.

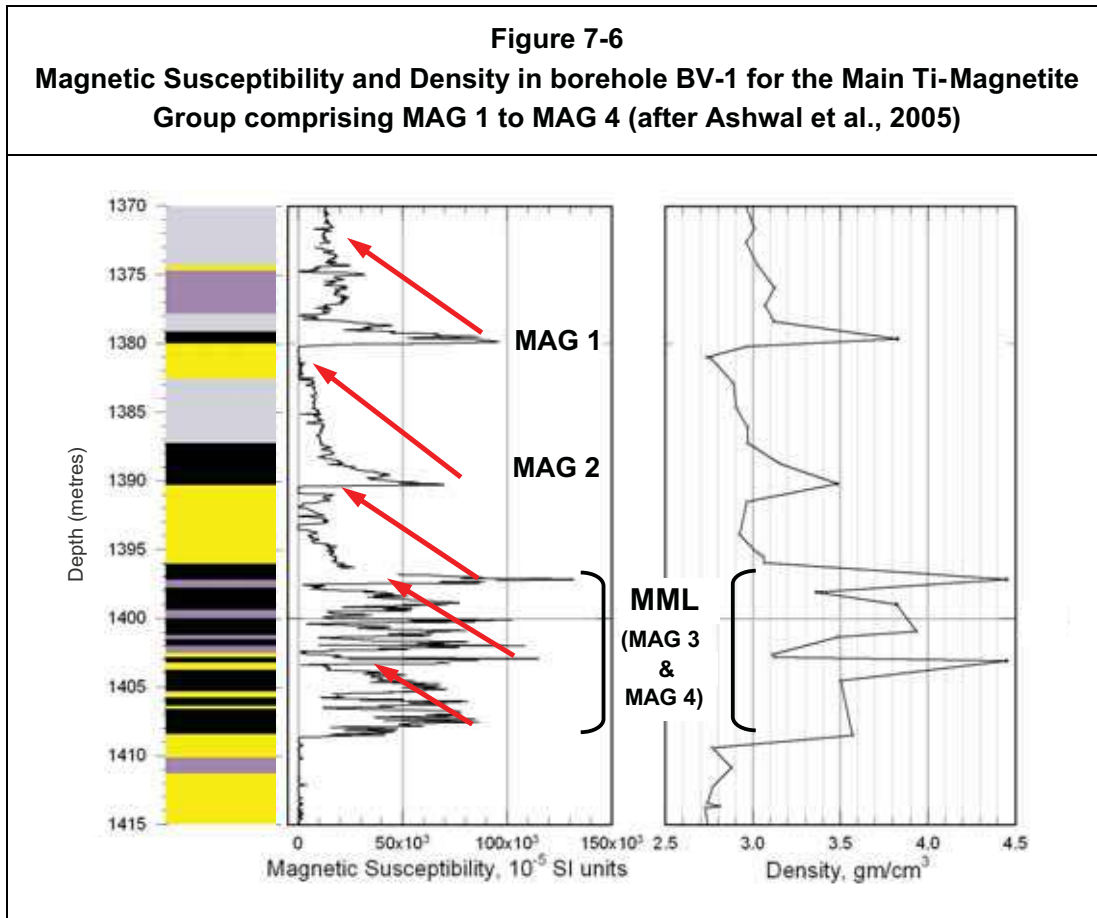
Schutte (1980) primarily investigated the vanadium potential of the VTM layers in the basal portion of the UZ and calculated a non-JORC-compliant mineral resource along the 16 km strike of the five farms of 419 million tonnes of VTM-rich material containing 6.5 million tonnes of  $V_2O_5$ . The tonnages represent the total estimated amount of Ti-magnetite “concentrate” potentially extractable from the Main Magnetite Group layers (MAG 1 to MAG 4) to a vertical depth of 80 m and the Lower Magnetite Group to a vertical depth of 200 m.

Trenching, bulk sampling and further drilling was conducted in the past 15 years and Vanadium and Magnetite Exploration and Development Co (SA) (Pty) Limited (VanMag) now hold Mining Rights over the five farms to the south of the Project area.

Schutte (1980) described the Main Magnetite Group as consisting of two semi-massive to massive VTM layers (MAG 3 and MAG 4) with a feldspar-rich parting - which are collectively referred to as the Main Magnetite Layer (MML) - and two *marker* VTM layers, approximately 7 m (MAG 2) and 14 m (MAG 1) above the MML.

Borehole BV-1 intersected a virtually identical Main Magnetite Group. Magnetic susceptibility and density measurements across the four VTM layers (MAG01 to MAG04) of the Main Group in borehole BV-1 were conducted by Ashwal and co-workers (2005) and the results are shown in Figure 7-6.

The variable VTM content (expressed as magnetic susceptibility) within the MML is illustrated in Figure 7-6 together with the cyclical pattern of high magnetic susceptibility with sharp contacts at the base of MAG 4, 2 and 1 overlying foot wall anorthosite characterised by low magnetic susceptibility (MS). A steady upwards decline in the MS from the base of the major Ti-magnetite layers is clearly evident and indicates a gradual upwards decrease in the amount of Ti-magnetite in each of the Ti-magnetite layers which form the base of individual cyclic units.



Note: Magnetic susceptibility measurements were collected every 2 cm on the Bellevue BV-1 drillcore. Density measurements were made at depth intervals of 1.7 m using core lengths of about 15 cm. Black: Magnetite-rich layers; Dark grey: Ti-magnetite gabbro and gabbro-norite; Light grey: Ti-magnetite leuconorite and leucogabbro; Yellow: Anorthosite

The fact that borehole BV-1 intersected the Main Magnetite Group layers at a vertical depth of approximately 1400 m highlights the remarkable down-dip continuity of the VTM layers. The thickness of the MML in BV-1 is approximately 10 m, which is comparable to the MML intersections in the four boreholes in the Project area which have an average thickness of about 8.4 m. The similarities in the stratigraphic position and overall appearance between the vanadium-rich Main Magnetite Layer (MML) in the Eastern Lobe and the similarly vanadium-enriched MML in the Northern Lobe leave little doubt that these two layers are stratigraphic equivalents, despite their considerable geographic separation (>150 km) and substantial differences in their thicknesses i.e. approximately 2 metres in the Eastern Lobe versus 6 to 9 metres in the Northern Lobe.

### 7.3.4 Structure

The Northern Lobe of the Bushveld Complex outcrops over an area approximately 120 km long and up to 15 km wide (Figure 7-2). The Lower and Critical Zones are only exposed at the southern portion of the Northern Lobe while the volumetrically more substantial Main and Upper

Zones occur along the entire length of the Lobe which transgresses along its eastern flank from sediments of the Proterozoic Transvaal Supergroup in the south to Archaean granitic basement rocks in the north (Van der Merwe, 1978; Cawthorn et al., 1986).

The VTM layers are conformable with the pseudo-stratification (magmatic layering) of the predominantly gabbroic rocks of the Main and Upper Zones and are postulated to extend down dip for several kilometres. The apparent dip of the strata ranges from 15° to 22° W which corresponds well with the mean dip of 17.5° W reported from borehole BV-1 drilled in 1991 on the farm Bellevue (Ashwal et al., 2005).

#### **7.3.4.1 Faulting**

Fault zones rarely outcrop but displacement of strata can be interpreted from aeromagnetic data and is supported directly in some cases with evidence of displaced geological units encountered during mapping (Cheshire, 2011). Fault zones are often intruded by Late-Bushveld red granitic dykes, providing supporting field evidence for the occurrence and position of faults.

Faulting in the area is characterised by major regional and subordinate local to semi-regional fault sets (Cheshire, 2011):

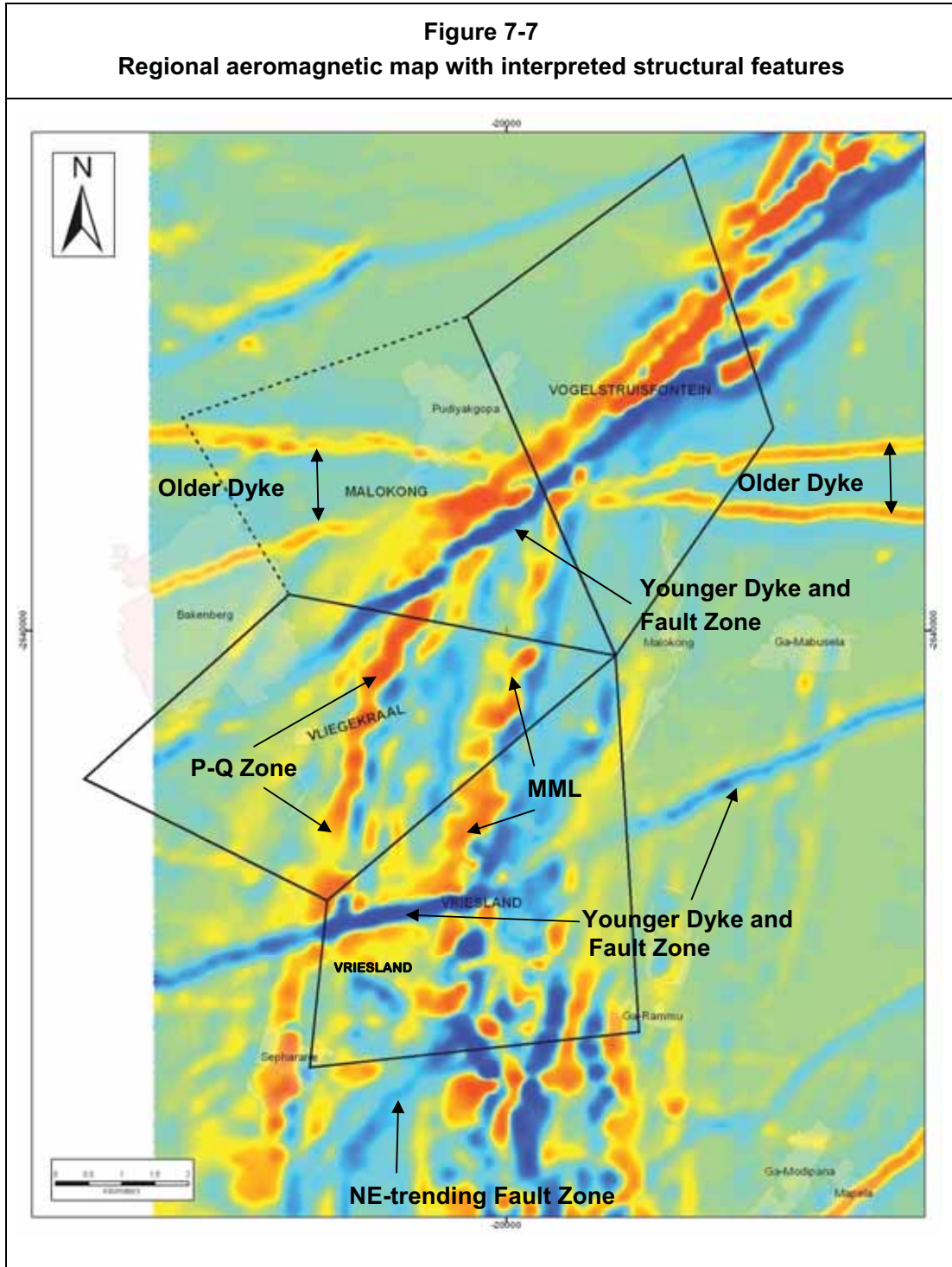
- Major regional NE-SW to ENE-WSW striking sub-vertical fault zones with a right lateral sense of horizontal displacement (up to 2600 m)
- Local to semi-regional ENE-WSW to E-W striking sub-vertical fault zones with both right and left lateral sense of horizontal displacement (up to 1400 m)

#### **7.3.4.2 Dolerite and Granite Intrusions**

The regional aeromagnetic image shows that the Project area is intruded by two dolerite dyke sets. An earlier E-W trending dyke set (positive magnetic signature) is crosscut by a later ENE-WSW trending (negative signature) dyke set (Figure 7-7).

Late-stage red-coloured granitic Bushveld dykes, pegmatites and quartz veins intrude the area with a general NNE-SSW strike and a sub-vertical dip. Granitic dykes can have a width of more than 50 m and preferentially occupy NNE-SSW brittle fault zones (Cheshire, 2011).

**Figure 7-7**  
**Regional aeromagnetic map with interpreted structural features**

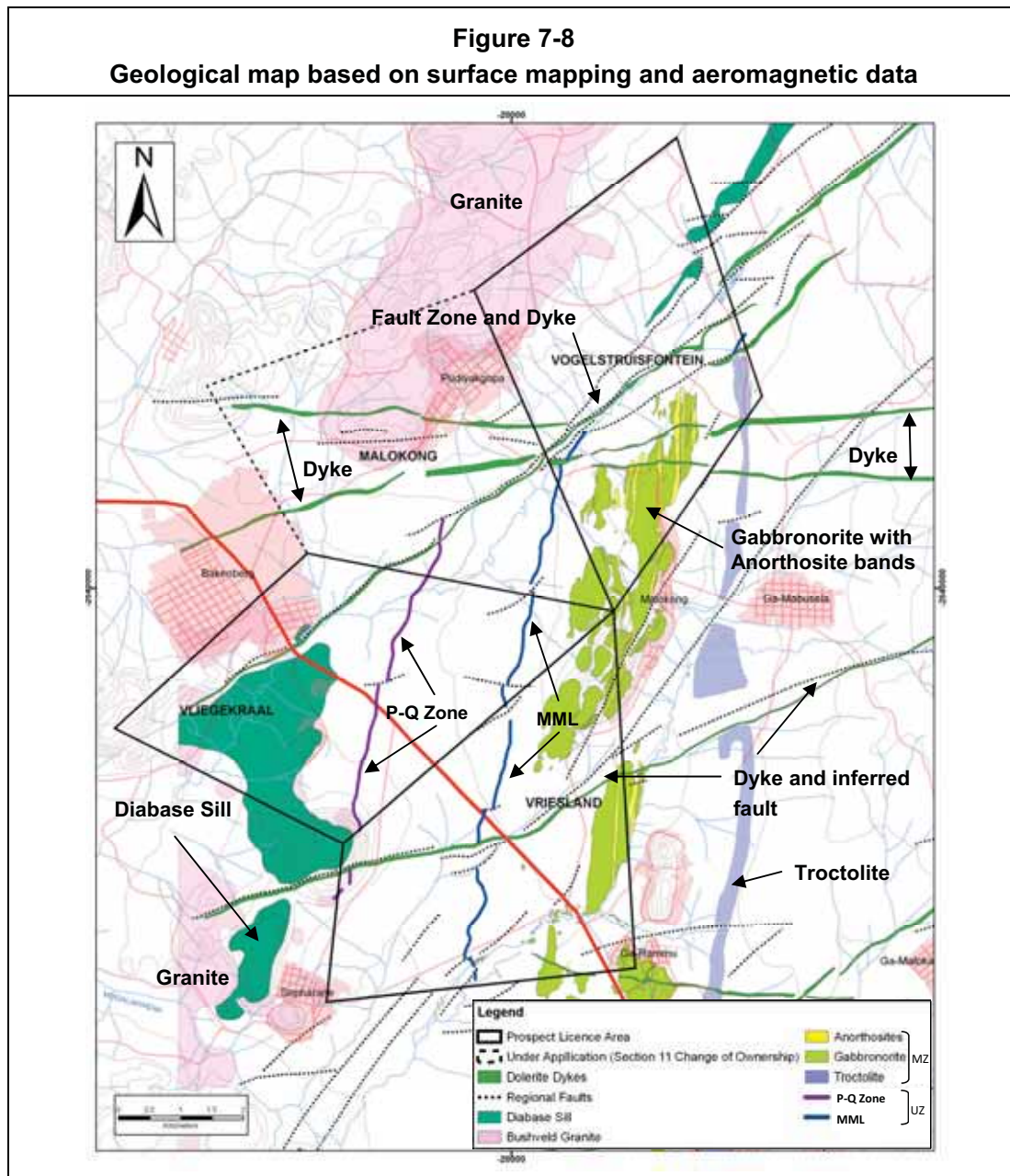


Note: P-Q Zone and MML have a strong positive (red coloured) magnetic signature

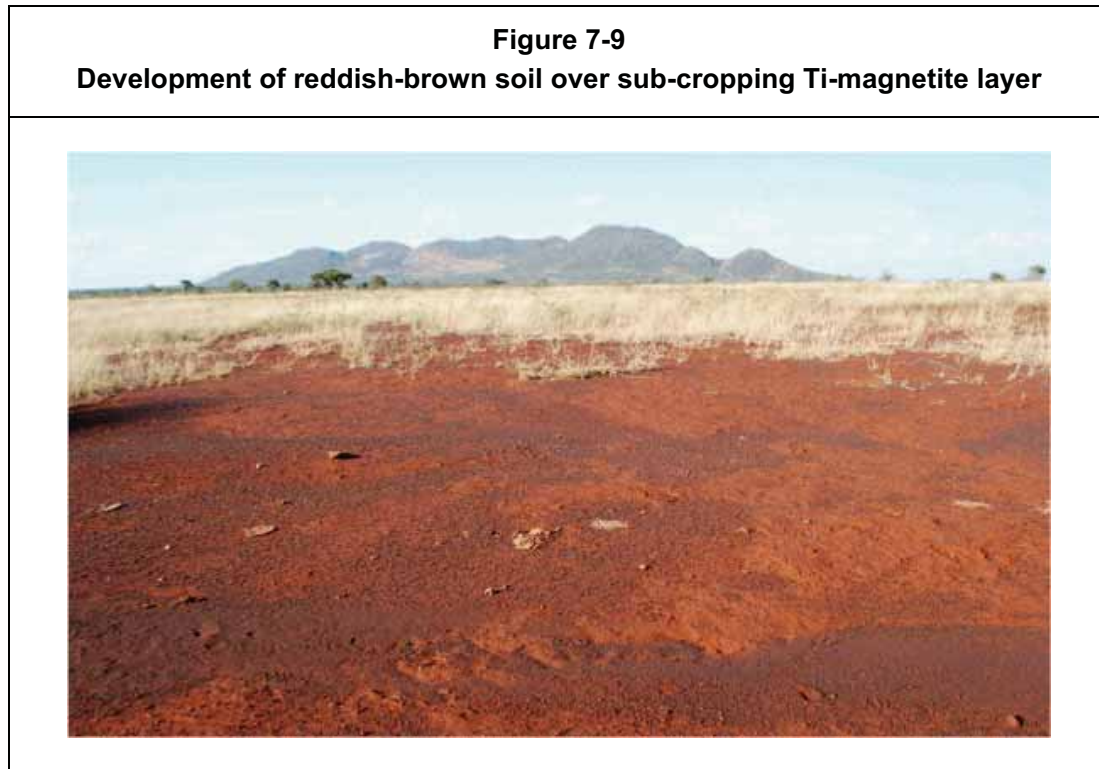
## 7.4 Property Geology

### 7.4.1 General

The gabbro-norite and anorthosite rocks of the Main Zone are well exposed in the hilly terrain and the adjacent thin residual soils within the eastern portions of the farms Vogelstruisfontein and Vriesland. A prominent troctolite unit, well documented from the Bellevue BV-1 stratigraphic borehole, outcrops on surface as a 200 m wide ridge in the eastern part of Vogelstruisfontein and can be traced southwards for tens of kilometres (Figure 7-8).



The magnetite-rich rocks of the Upper Zone in the central portion of the Project area are generally not exposed due to 3 m to 10 m thick soil cover. Sparse outcrop of Ti-magnetite can be found along certain drainage courses, although magnetite float and fine debris is often present on surface. The position of sub-cropping Ti-magnetite layers is usually marked by a diagnostic reddish-brown soil colour (Figure 7-9) which contains abundant weathered Ti-magnetite (haematite) grains.



Note: On farm Vliegekraal looking east towards a ridge of Main Zone gabbro-norites and anorthosites

A massive, medium-grained, post-Bushveld diabase sill and red-coloured post-Bushveld Nebo granite rocks outcrop in hilly terrain on the western portion of Vliegekraal and the northern part of Vogelstruisfontein farms, respectively. The diabase sill forms prominent flat-topped kopjes and is more than 100 m thick on Vliegekraal farm with shallow westerly dips of up to 20°.

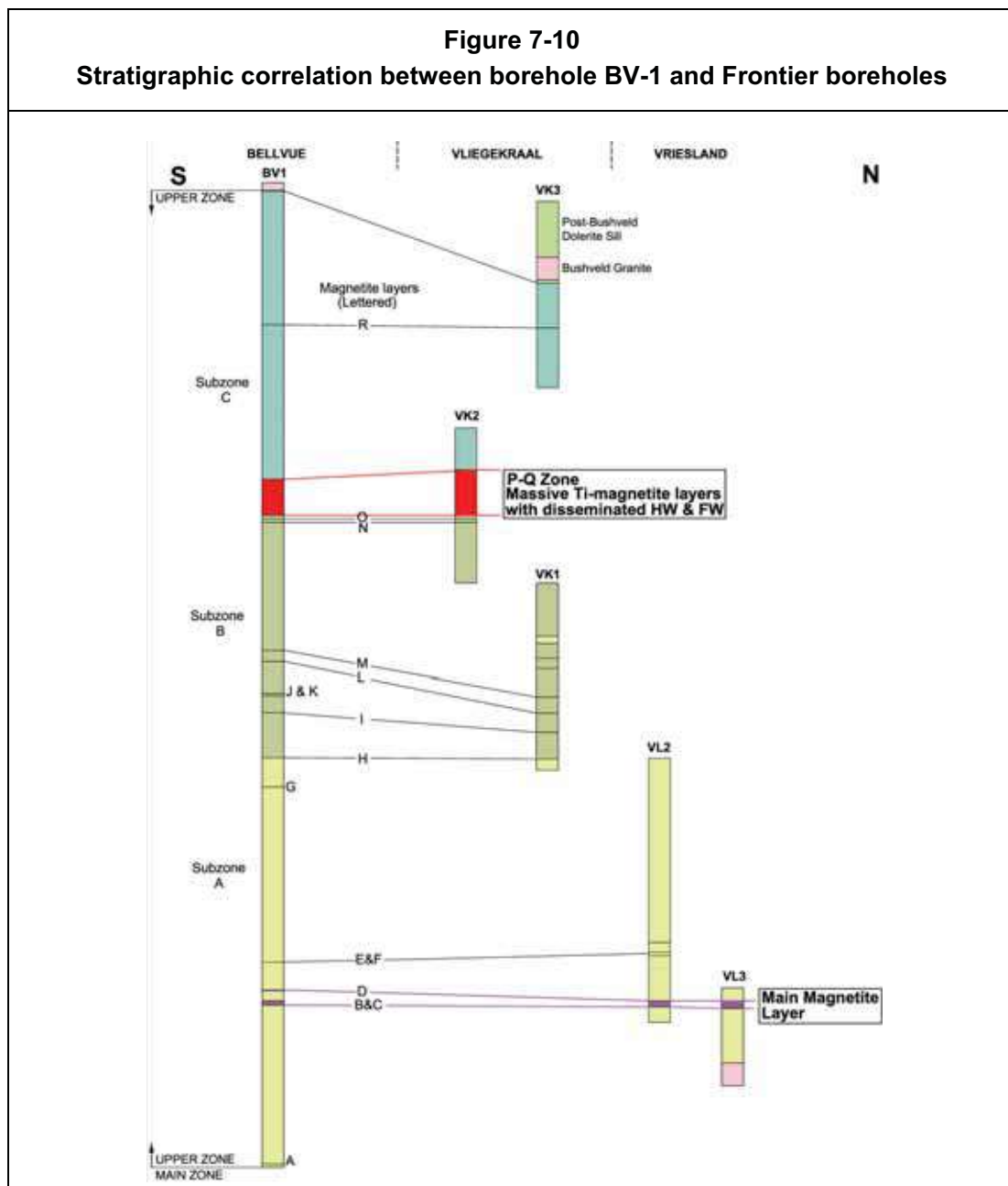
The geological map shown in Figure 7-8 is based on geological field mapping, aeromagnetic and core drilling data. The aeromagnetic data was particularly useful in locating the approximate position of the major Ti-magnetite layers and in constraining the location of structural features and dolerite intrusions.

The stratigraphic succession of cyclic magmatic units and Ti-magnetite-rich zones were established in the stratigraphic borehole BV-1 drilled by the CGS approximately 2 km southwest of the Project area. The succession was confirmed and adopted by Frontier to define the geological sequence encountered during mapping and exploration drilling in the Project area where Upper Zone lithologies are generally not, or only poorly, exposed. The detailed

descriptions of two stratiform zones of vanadium-titanium-magnetite (VTM) mineralisation and associated semi-massive VTM layers are therefore based entirely on drillcore intersections (Sections 7.4.1.1 and 7.4.1.2). The two significant VTM mineralised zones intersected are:

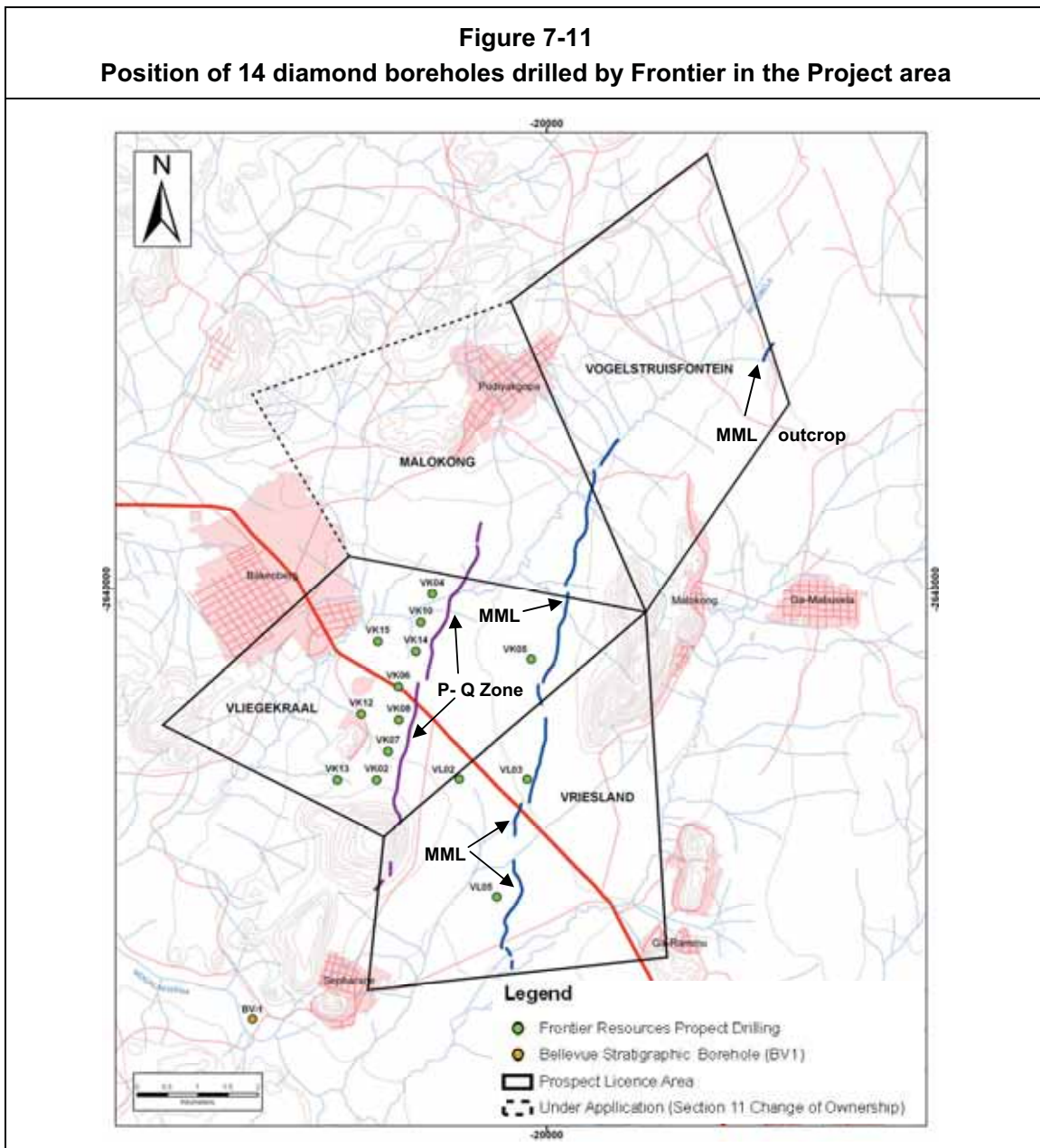
- Main Ti-magnetite Layer (MML)
- P and Q Ti-magnetites (P- Q Layers) and disseminated foot- and hanging-wall (P-Q Zone)

A stratigraphic correlation of prominent Ti-magnetite layers in borehole BV-1 with various boreholes drilled by Frontier is schematically shown in Figure 7-10.



### 7.4.1.1 Main Ti-magnetite Layer (MML)

The MML mineralised zone occurs near the base of the Upper Zone and consists of an upper VTM-rich interval (MAG 3) which is separated from the lower VTM-rich interval (MAG 4) by a VTM-poorer leucogabbronrite parting (Figure 7-12), similar to BV-1 shown in Figure 7-6. The MML was intersected in four vertical boreholes (VL2, VL3, VL5 and VK5) in the Project area and ranges in thickness from 8.7 m to 9.4 m before correction for a dip of approximately 18°. The average true thickness of the MML is 8.4 m. The position of the boreholes in relation to the MML and P-Q Zone is shown in Figure 7-11.

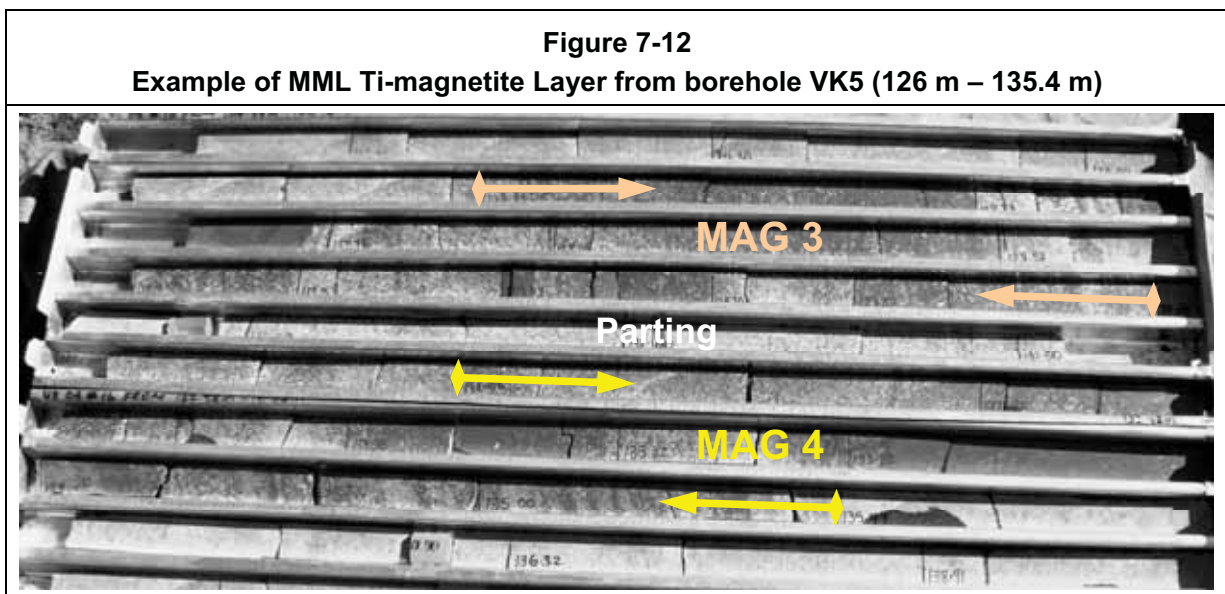


Note: Stratigraphic borehole BV-1 drilled in 1991 by the Council for Geoscience on the adjacent farm Bellevue is situated above scale bar



The MAG 3 and MAG 4 are composite layers, each consisting of bands of VTM-rich to massive VTM intervals alternating with VTM-poor sections. MAG 3 and MAG 4 are invariably separated by a VTM-poor “parting” (Figure 7-12) which has a width of approximately 1.8 m while the downhole width for the entire MML package (MAG 3, MAG 4 and parting) ranges between 8 m and 10 m.

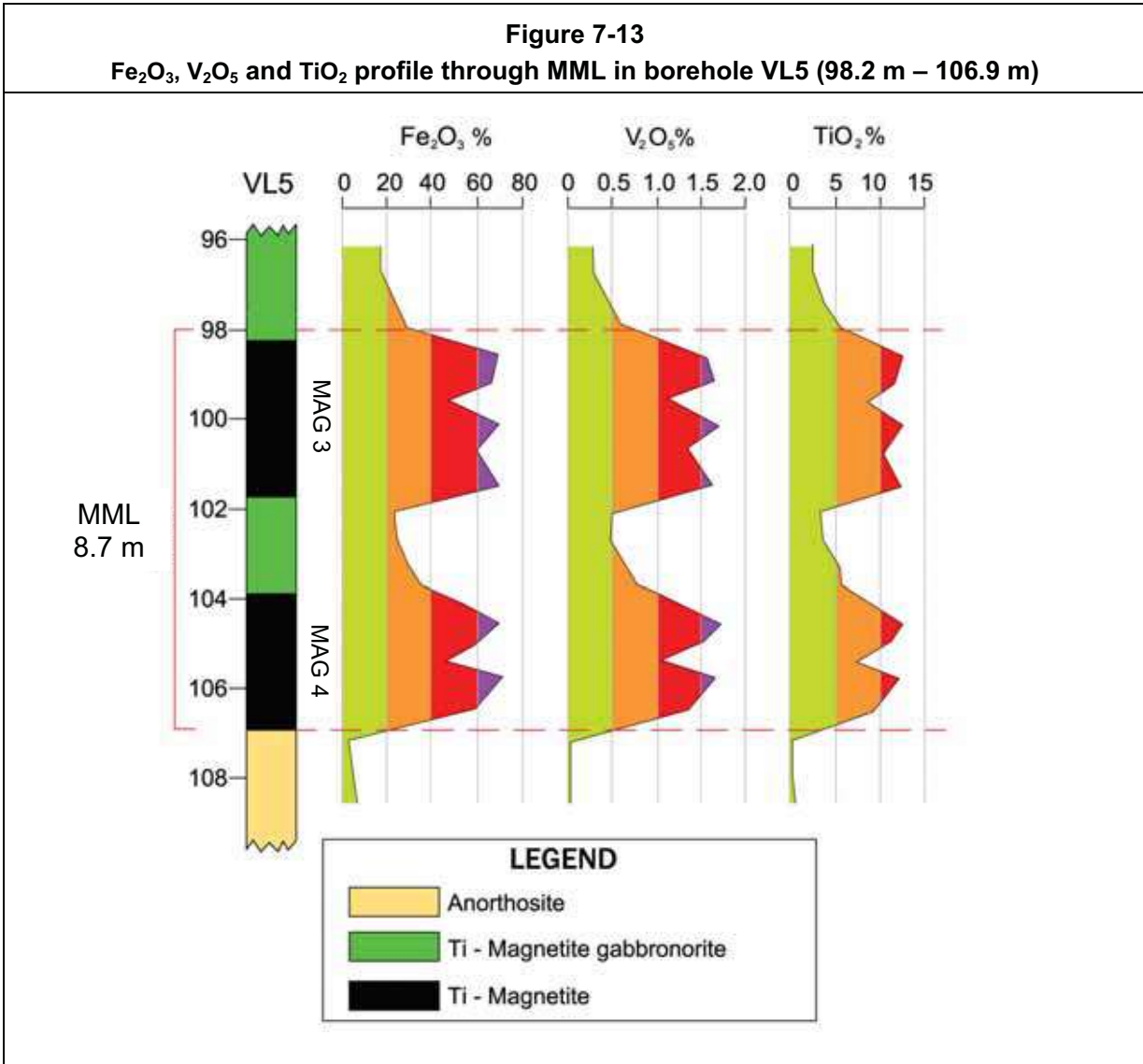
The entire MML package has an average vanadium content of approximately 1.3%  $V_2O_5$  with maximum concentrations of 1.5% to 1.7%  $V_2O_5$  in the massive VTM bands (>95% VTM). These values compare very favourably with the reported  $V_2O_5$  grades from the Mapochs Mine in the Eastern Bushveld Lobe (see Section 6). A geological log and compositional variation of  $Fe_2O_3$ ,  $TiO_2$  and  $V_2O_5$  through the MML are shown in Figure 7-13 for borehole VL5.



Note: The Main Magnetite Layer (MML) comprises the semi massive to massive MAG 3 (upper) and MAG 4 (lower) Layers and the VTM-poor leucogabbro parting. The base of each arrow indicates top and bottom contacts and drillcore sampling intervals of the MAG 3 and MAG 4 Layers. Core diameter is 4.8 cm

Isolated (<0.5% visible sulphide) to weakly disseminated sulphides (1% to 2% visible sulphide) occur throughout and are usually more evident in the leucogabbro partings and towards the base of the MML. Average Ni and Cu concentrations within the MML are generally below 1000 ppm (<0.1%) and Platinum Group Element (PGE) values are below 50 ppb. Phosphorus-bearing minerals were not observed; this was geochemically confirmed by  $P_2O_5$  concentrations of <100 ppm (<0.01%  $P_2O_5$ ).

At levels of approximately 7 m and 14 m above the MML, two characteristic marker Ti-magnetite layers MAG 2 and MAG 1 occur within VTM-poor anorthosite and leucogabbro (Figure 7-6). These two layers have average thicknesses of approximately 1.2 m (MAG 2) and 1.5 m (MAG 1), respectively, contain an estimated 65% to 80% Ti-magnetite and are useful stratigraphic and geological markers to the MML. Although these marker layers contain less vanadium (average of about 1%  $V_2O_5$ ) compared to the Main Layers (MAG 3 and MAG 4), they may represent an exploitable mineral resource when exposed during deeper open cast extraction of the MML.



Note: Above element concentrations were assayed from continuous ±50 cm long drill core samples. The 8.7 m is the apparent width in the borehole and not corrected for a dip of 18°

**7.4.1.2 P-Q Ti-magnetites (P-Q Layers) and disseminated foot- and hanging-wall (P-Q Zone)**

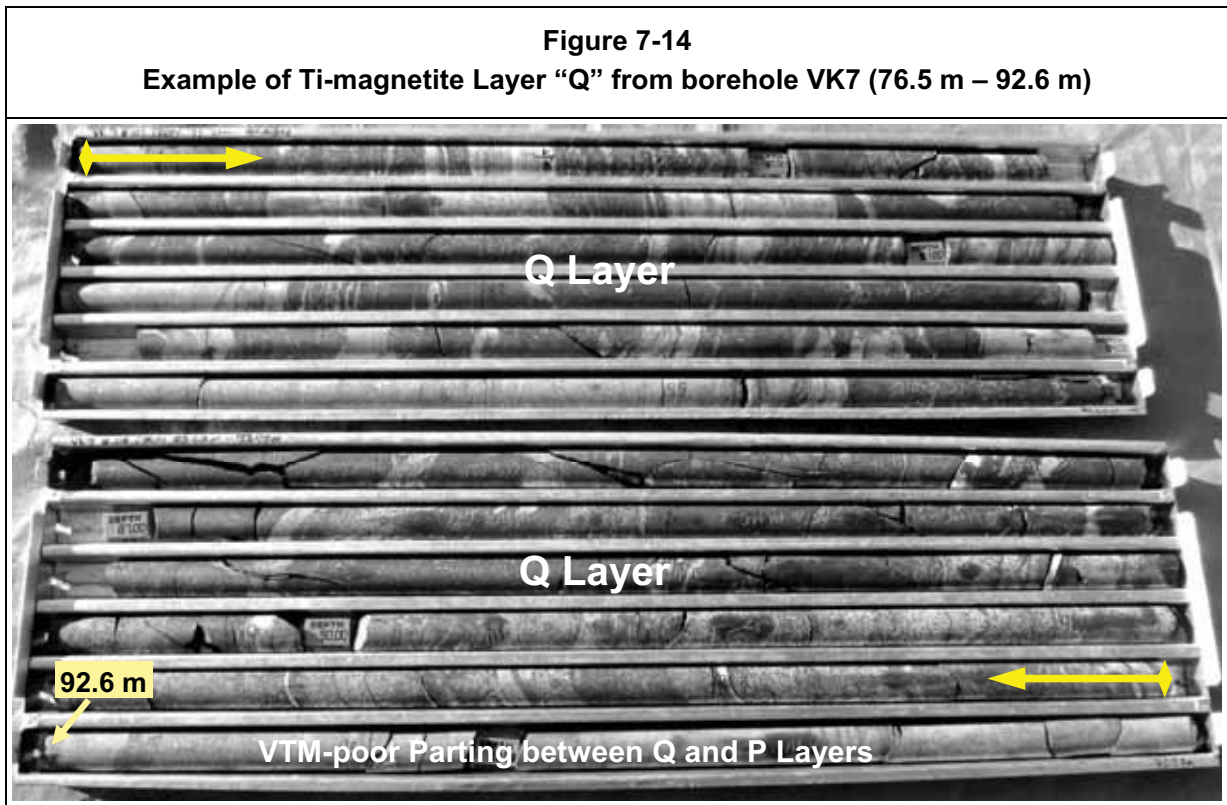
The P-Q Zone occurs near the top of the Upper Zone and includes the two leucogabbronorite-hosted VTM-rich layers P and Q which are commonly separated by a leucogabbronorite parting with a low VTM content (Figure 7-14). VTM-enriched gabbros and norites with up to 50% disseminated Ti-magnetite occur in the foot- and hanging-wall sequence of the P-Q Layers and together with the latter, more massive layers, form the so-called P-Q Zone.

The P and Q Layers consist of high-grade VTM-rich intervals alternating with relatively narrow bands of gabbronorite with variable amounts of VTM (<10% to >50%). Individual VTM-rich and

VTM-poor “sub-layers” within the P and Q Layers are difficult to correlate between boreholes and their relative abundance determines the overall VTM abundance and hence the Fe, Ti and V contents of the P and Q Layers. The complexity of the relationship between VTM-rich and VTM-poor “sub-layers” is illustrated in Figure 7-15 which shows that the internal contacts can be gradational or sharp.

The foot- and hanging-wall sequence of the P-Q Layers consists of VTM-enriched gabbros and gabbronorites. The visually estimated abundance of VTM over most of the latter sequence ranges between 35% and 65%. Poorly mineralised intervals with less than 10% VTM occur sporadically within the foot- and hanging-wall sequence but their apparent width is generally less than five metres. Narrow (<1 m) zones with semi-massive to massive VTM layers occur occasionally within 5 m to 10 m above and below the P-Q Layer but cannot be correlated between boreholes.

Frontier intersected the P and Q layers and the VTM-enriched foot- and hanging-wall sequence (P-Q Zone) in 10 boreholes. The P and Q Layer package ranges in thickness from 15 to 27 m, while the entire P-Q Zone, which includes the P-Q Layers, has a downhole width ranging from 26 m to 81 m and a calculated average true thickness of approximately 45 m after correction for an averaged dip of 20°. The mineral resource estimations in Section 17 are calculated for the entire P-Q Zone.



Note: An approximately 7 m thick VTM-poor leucogabbronorite Parting from a depth of 92.6 m separates the approximately 16 m thick Q Layer (apparent width) from the underlying P Layer (not shown). The base of the yellow arrows indicates the top and bottom contacts of the Q Layer. Drillcore diameter is 4.8 cm

The sulphide content in the P-Q Zone varies between trace (<0.5% visible sulphide) and moderately disseminated (2% to 5% visible sulphide) with rare occurrences of semi-massive bands or stringers which are generally less than a few centimetres wide and appear to be restricted to the foot-wall sequence of the P-Q Layers.

Phosphorus-bearing minerals appear to be generally rare, or absent in the P-Q Zone except for a 6 m to 9 m wide, VTM-poor leucocratic interval which was only observed in the southernmost boreholes VK7 and VK2 (Figure 7-16). The latter interval occurs immediately above the top of the Q Layer and has averaged  $P_2O_5$  concentrations over the P-enriched unit of 0.5% and 0.7%, respectively. Apatite-bearing rocks with  $P_2O_5$  concentrations of between 1% and 5% occur immediately above the P-Q Zone and are a common feature in the overlying, uppermost portion of the Upper Zone (Ashwal et al., 2005).

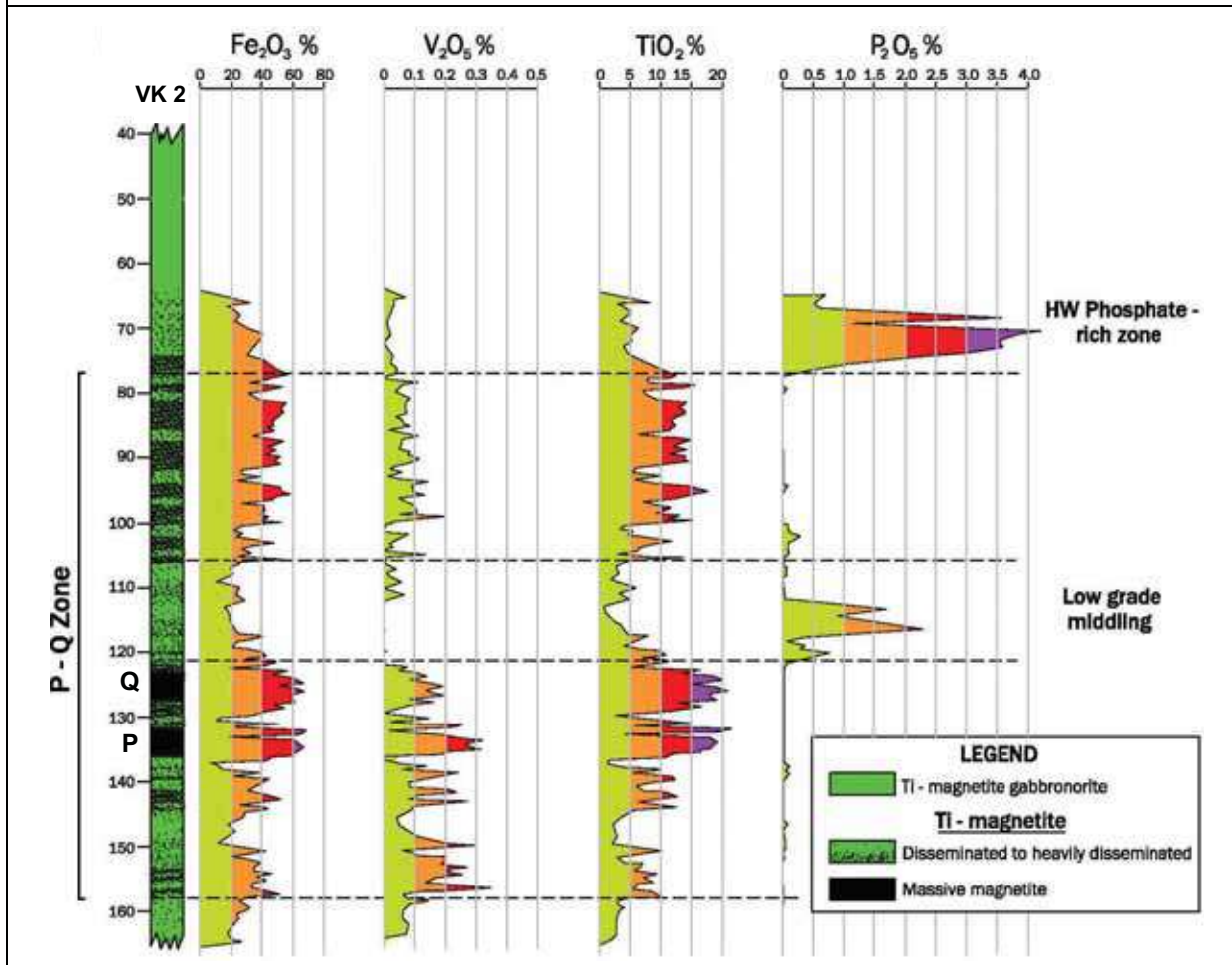
**Figure 7-15**  
**Close-up of VTM-rich and VTM-poor banding in the Q Layer of VK2**



Note: VTM-rich (up to 100% VTM) and VTM-poor (<20% VTM) bands vary in width from <1 cm to >50 cm. Core diameter is 4.8 cm

A geological log and compositional variations of  $Fe_2O_3$ ,  $V_2O_5$ ,  $TiO_2$  and  $P_2O_5$  through the P-Q Zone are shown in Figure 7-16 for borehole VK2 which intersected the thickest P-Q Zone.

**Figure 7-16**  
**Fe<sub>2</sub>O<sub>3</sub>, V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub> and P<sub>2</sub>O<sub>5</sub> profile through the P- Q Zone in borehole VK2 (76 m – 157 m)**



Note: Above element concentrations were assayed from continuous ±50 cm long drill core samples. The displayed thicknesses of the individual units are not corrected for a dip of approximately 20°

#### 7.4.2 Structure

Three sets of regional fault zones transect the Project area (Figure 7-8):

- A NE-SW striking fault zone crosses the central part of Vogelstruisfontein, the south-central portion of Malokong and the northern part of Vliegkraal. This regional structure is partly intruded by a doleritic dyke and separates the NE-SW trending Upper Zone lithologies north of the fault from the roughly northerly striking Upper and Main Zone stratigraphy to the south of the fault. The fault structure is responsible for the abrupt truncation of the layered stratigraphy of the Upper and Main Zone rock units and their displacement to the northeast such that the Main Magnetite Layer (MML) abuts against the northern edge of the Main Zone troctolite layer on Vogelstruisfontein. This indicates an apparent vertical displacement of 1 400 m (downthrown to the NW) and an apparent horizontal displacement (right lateral)

of 2 600 m (Cheshire, 2011). The general paucity of outcrop in the faulted area on Vogelstruisfontein does not allow for an assessment of the position and the extent of displacement of the Upper Zone lithologies, including the Ti-magnetite layers, without further drilling

- A NE-SW striking fault zone across Vriesland is inferred from a left lateral horizontal displacement of the Main Zone troctolite unit to the east of the Project area (Cheshire, 2011). The effect of the latter structure and possible associated splays on the Upper Zone lithologies cannot be quantified without further drilling due to the poor outcrop conditions, although the aeromagnetic data do not indicate a large displacement on the P-Q Zone and the MML
- An ENE-WSW striking fault zone crosses the central part of Vriesland and has been intruded in part by a doleritic dyke with a distinct magnetically negative signature, usually diagnostic for Karoo-aged dolerites (Figure 7-7). The fault resulted in a right lateral displacement of the diabase sill outcrop near the western boundary of Vriesland although limited displacement is evident for the P-Q Zone and the MML. The southern portion of Vriesland appears to be affected by block faulting as a result of the intersection of the regional NE-SW and ENE-WSW fault zones. Block faulting is generally linked to normal faults and the resulting structural blocks can differ slightly in their orientation and dip and usually have a strike extent of several hundred metres to several kilometres. Structural compartments are a common feature along the entire strike length of the Northern Lobe (Schutte, 1980; van der Merwe, 1978)

## 8 DEPOSIT TYPE

The Project is situated within the Upper Zone of the Northern Lobe of the Bushveld Complex (BC) and targets several of the vanadiferous Ti-magnetite (VTM) Layers and VTM-enriched foot- and hanging-wall rocks. Exploration has focussed on the semi-massive to massive Main Magnetite Layer (MML) and the P and Q Layers. The latter are enclosed by gabbroic rocks which contain considerable quantities of medium- to coarse-grained disseminated Ti-magnetite and, together with the P and Q Layers, define the P-Q Zone.

The BC is the world's largest and economically most important layered complex and is known for the remarkable geological and geochemical continuity of the magmatic stratigraphy and of individual units and layers which can frequently be traced for tens of kilometres along strike. In common with other layered intrusions such as the Great Dyke in Zimbabwe (Wilson, 1997), Molopo Farms Complex in Botswana (Reichhardt, 1994) and the Stillwater Complex in the USA (Irvine et al., 1983) the intrusive mafic to ultramafic magma has undergone a differentiation process which has resulted in the formation of magnesium-, chromium-, nickel- and precious metal-rich units in the lower part of the Complex with iron-, titanium-, vanadium- and phosphorus-rich layers in the upper portion of the intrusion.

Gentle tilting due to tectonic processes and subsequent erosion has caused the entire stratigraphic sequence to be exposed on surface in form of shallow westerly dipping units and layers.

The targeted MML occurs close to the base of the Upper Zone and is an 8 m to 10 m thick Ti-magnetite layer with high vanadium concentrations. The P-Q Ti-magnetite layers and associated Ti-magnetite-rich gabbroic rocks constitute the P-Q Zone which has an average thickness of about 45 m. The P-Q Zone has notably lower vanadium but higher titanium concentrations compared to the MML and occurs stratigraphically near the top of the approximately 1 250 m thick Upper Zone.

## 9 MINERALISATION

Known styles of mineralisation in the Northern Lobe of the Bushveld Complex and in the Project area are summarised below:

- Vanadium-titanium-magnetite (VTM) mineralisation associated with the titaniferous and vanadiferous magnetite layers and Ti-magnetite-rich units of the Upper Zone which sub-outcrop in the licence area
- Platinum group element, copper-nickel (PGE-Cu-Ni) mineralisation sporadically recorded in the Main and lower part of Upper Zone rocks which sub-outcrop in the licence area
- Platinum group element, copper-nickel (PGE-Cu-Ni) mineralisation associated with the basal contact of the Bushveld Complex and Basement floor rocks, known as the Platreef ore zone. The Platreef would be expected to underlie the licence area at depths in excess of 1 000 m

Disseminated VTM occurs as an accessory mineral throughout the Upper Zone. Stratigraphic horizons with high concentrations of VTM are collectively referred to as Ti-magnetite layers even though the amount of VTM varies considerably within individual layers and from layer to layer.

Virtually all layers are composite units and invariably contain relatively VTM-poor (<30%) sections, or partings, and have either gradational or sharp contacts with foot- and hanging wall rocks. The foot wall contacts of the VTM layers tend to be reasonably sharp. VTM concentrations rarely exceed 90%, and only over short intervals, within certain layers. The complex nature of VTM distribution in an individual layer is shown in Figure 7-15.

Vanadium in Ti-magnetite layers is exclusively hosted in "solid solution" within the Ti-magnetite grains while titanium occurs partly within magnetite ("solid solution") and also as small, discrete grains of ilmenite commonly along the Ti-magnetite grain boundaries. Whole-rock vanadium concentrations are highest in the lowermost Ti-magnetite layers ( $\pm 1.6\% \text{ V}_2\text{O}_5$ ) and decrease gradually upwards to less than 0.4%  $\text{V}_2\text{O}_5$ . Titanium shows the opposite trend and increases from about 10% to 12%  $\text{TiO}_2$  in the lowermost layers to concentrations in excess of 20%  $\text{TiO}_2$  in the uppermost layers of the Upper Zone (Klemm et al., 1985).

Total iron oxide (expressed as  $\text{Fe}_2\text{O}_3$ ) in Ti-magnetite decreases from about 76% near the base of the Upper Zone to values of about 70% in the uppermost VTM layers. Similarly,  $\text{Al}_2\text{O}_3$  in Ti-magnetite decreases with stratigraphic height from approximately 6% in the lower layers to about 4%  $\text{Al}_2\text{O}_3$  in VTM layers near the top of the Upper Zone (Klemm et al., 1985).



## 10 EXPLORATION

### 10.1 Exploration approach and methodology

The current exploration programme was subdivided into 4 phases and was undertaken between August 2009 and September 2011. The programme followed a phased and results-driven approach which is standard practice for early stage exploration projects:

- Phase 1 – Desktop Information Review (August 2009 – January 2010)

Development of a geological and mineralisation model using published and unpublished geological, geochemical, geophysical, remote sensing and exploration data from the CGS, other geological institutions, publications and private companies.

- Phase 2 – Surface Field Investigation (September 2009 – April 2010)

Establish the geological setting and presence of surface mineralisation and identification of potential targets for further testing. Work included geological mapping, soil sampling, air photo interpretation, rock chip sampling and interpretation of the data.

The laboratory analysis from a chip sample from an outcropping Ti-magnetite layer on the south-eastern farm boundary of Vogelstruisfontein confirmed that the latter layer is the MML. The MML is characterised by high vanadium and relatively low titanium concentrations compared to other Ti-magnetite layers in the Upper Zone (see Section 7.2).

Table 10-1 Assay results from a rock chip sample on Vogelstruisfontein							
Easting Lo29 WGS84	Northing Lo29 WGS84	Fe <sub>2</sub> O <sub>3</sub> %	V <sub>2</sub> O <sub>5</sub> %	TiO <sub>2</sub> %	Cu ppm	Ni ppm	Cr ppm
-16396	-2636184	71.9	1.52	13.6	509	609	1900

- Phase 3 – Initial Target Testing (May 2010 – November 2010)

Diamond drilling was undertaken on selected geological and geophysical targets to investigate the presence of massive and disseminated Ti-magnetite mineralisation. A total of 6 boreholes with a total length of 1 582.25 m were drilled and provided an indication of type and width of Ti-magnetite mineralisation along an east-west section covering virtually the entire Upper Zone stratigraphy.

Of the six holes, VL2, VL3, VK1, VK2 and VK3 were drilled along an east-west profile (Figure 7-11) while VL4 was drilled about 1 km north of the latter line of holes. Holes VL2 provided a deep (±400 m) and VL3 a shallow (±30 m) intersection of the MML while VK2 intersected the base of the P-Q Zone at a depth of 157 m. VL4 was sited in the footwall of the MML and is therefore excluded from this report.

VK1 and VK3 were drilled as stratigraphic holes in the hanging- and foot-wall of the P-Q Zone to confirm that no further Ti-magnetite layers and/or VTM-enriched zones of potential economic interest occur between the MML and the P-Q Zone and above the latter Zone. As established in the stratigraphic CGS borehole BV-1, boreholes VK1 and VK3 intersected Ti-magnetite gabbros and several generally narrow Ti-magnetite layers. The stratigraphic intervals intersected in VK1 and VK3 are not material to this report and the boreholes are therefore excluded.

- Phase 4 – Target Drilling (March 2011 – September 2011)

Diamond drilling during Phase 4 consisted of 9 holes targeting the P-Q Layers and the foot- and hanging-wall sequence with disseminated VTM mineralisation (the “P-Q holes”) and 2 holes targeting the MML (the “MML holes”). The 11 boreholes had a total drill length of 2 651.82 m and the position of the individual holes is shown in Figure 7-11. Of the 9 P-Q boreholes, 6 were drilled at regular intervals of 500 m to 600 m along strike to delineate the lateral continuity of the P-Q Zone at relatively shallow depths, while 3 boreholes were spaced at horizontal distances of 1 000 m to 1 200 m to establish the down-dip continuity of the P-Q Zone.

The two MML holes (VL5 and VK5) were spaced at approximately 2 000 m to prove the lateral continuity of the latter mineralisation beyond the position of the MML established during the 2010 drilling campaign.

All 11 boreholes drilled during the 2011 drill programme intersected the targeted VTM mineralisation and the results were used for the mineral resource estimation (Section 17) together with the 3 boreholes from the initial 2010 drill campaign.

## 10.2 Geophysical Surveys

The CGS carried out a semi-regional aeromagnetic survey in the late 1990s and the results were used by Frontier to constrain the approximate position of the highly magnetic Ti-magnetite layers and to identify structural features (see Section 7.3.4).

A ground magnetic survey was conducted by the Mining Corporation Limited (MCL, a South African government company) and published by the Geological Survey of South Africa (Schutte, 1980) in the form of hand-contoured magnetic intensity maps. The data were used together with the aeromagnetic survey to locate the sub-outcropping Ti-magnetite layers and to guide the initial diamond drill programme in 2010.

## 11 DRILLING

### 11.1 Drilling Methods

Diamond core drilling during the initial exploration phase in 2010 (Section 10.1) was conducted by Drillcorp Africa (Pty) Ltd (Drillcorp). All six boreholes were drilled vertically with an NQ core size diameter of 47.5 mm and the holes varied in depth from 148 m and 427 m. A Longyear 44 rig with a standard 6 m long core barrel was used for the drilling.

Table 11-1 Summary of boreholes drilled during the 2010 and 2011 exploration campaigns							
Borehole ID	Farm	Easting Lo29 WGS84	Northing Lo29 WGS84	Elevation amsl (m)	Depth of Hole (m)	Ti-magnetite intersected	Year drilled
VK1	Vliegekraal	-22187	-2643158	1024	300.36	Strat hole*	2010
VK2	Vliegekraal	-22820.23	-2643172.30	1030.45	250.08	P-Q Zone	2010
VK3	Vliegekraal	-23749	-2643176	1016	299.91	Strat hole*	2010
VK4	Vliegekraal	-21898.75	-2640075.64	1010.13	224.38	P-Q Zone	2011
VK5	Vliegekraal	-20252.53	-2641159.00	1023.14	166.10	MML	2011
VK6	Vliegekraal	-22462.00	-2641623.35	1007.23	214.99	P-Q Zone	2011
VK7	Vliegekraal	-22630.56	-2642694.38	1019.04	150.00	P-Q Zone	2011
VK8	Vliegekraal	-22455.19	-2642170.17	1011.46	150.07	P-Q Zone	2011
VK10	Vliegekraal	-22088.30	-2640549.92	1007.54	211.05	P-Q Zone	2011
VK12	Vliegekraal	-23074.10	-2642074.81	1009.79	356.84	P-Q Zone	2011
VK13	Vliegekraal	-23473.49	-2643174.08	1020.49	391.55	P-Q Zone	2011
VK14	Vliegekraal	-22171.25	-2641035.28	1007.83	200.15	P-Q Zone	2011
VK15	Vliegekraal	-22799.75	-2640865.89	1003.35	434.66	P-Q Zone	2011
VL2	Vriesland	-21445.92	-2643156.63	1012.36	427.25	MML	2010
VL3	Vriesland	-20323.08	-2643160.33	1015.99	156.65	MML	2010
VL4	Vriesland	-19948	-2642158	1029	148.00	Strat hole*	2010
VL5	Vriesland	-20825.45	-2645113.59	1004.15	152.02	MML	2011
Total: all 17 boreholes					4234.06		
Total: 14 boreholes used for mineral resource estimation					3485.79		

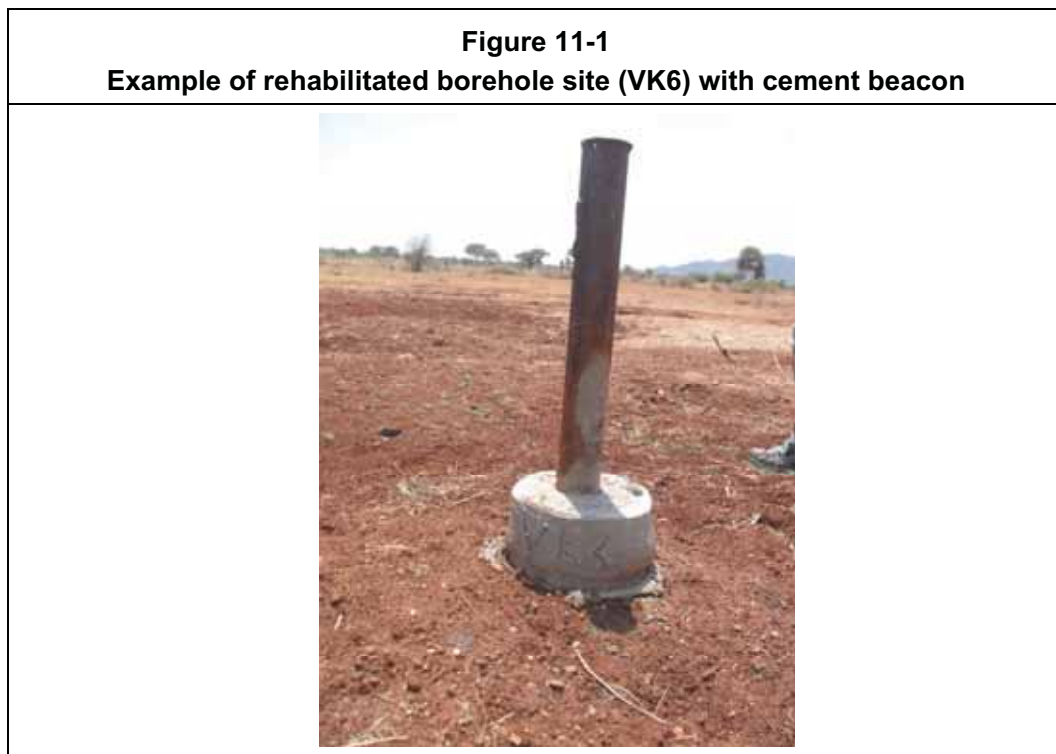
Strat hole\*: borehole drilled in 2010 as part of the initial stratigraphic drill programme

The target drilling during 2011 consisted of 11 vertical drill holes which were also drilled by Drillcorp. The boreholes were drilled with a NQ core diameter and ranged in depth from 150 m to 435 m. Removable HQ-sized casing was inserted to depths of 5 m to 8 m to protect the hole from collapsing while drilling through the unconsolidated soil and weathered bedrock.

The collar position of all 14 boreholes with MML and P-Q Zone intersections were surveyed by a registered professional land surveyor using a real-time differential GPS and a base station. The coordinates and elevations are presented in Table 11-1 together with the borehole depths and the intersected Ti-magnetite mineralisation. The collar coordinates and elevations for

stratigraphic holes VK1, VK3 and VL4 were determined with a handheld Garmin GPS and the accuracy is probably only to within  $\pm 5$  m. The latter boreholes were not used for the mineral resource estimation (Section 17).

The borehole sites were rehabilitated and the position of the collars permanently marked with a cement beacon on which the borehole number was engraved (Figure 11-1).



The core recoveries in the poorly consolidated overburden (3 m to 6 m) and the weathered portion of the bedrock were relatively low (5% to 70%) but averaged above 95% in unweathered rock beyond depths of 15 m to 25 m. Core losses and core recovery percentages were recorded for the length of each borehole in geotechnical log sheets together with the rock hardness, degree of weathering and the number of fractures for each drill run. The hand written log sheets were captured digitally at the Mokopane field office into the project database which consists of MS Office Excel spreadsheets.

## 11.2 Density Measurements

No bulk density measurements were conducted. The specific gravity was determined on all drill core samples with a gas pycnometer by Set Point Laboratory in Johannesburg, South Africa.

## 11.3 Downhole Geophysical Logging

No downhole geophysical logging or other downhole surveys were carried out. Downhole surveys are recommended for all future drilling to establish any variation from the vertical path.

## 12 SAMPLING METHOD AND APPROACH

Sampling of the drillcore was undertaken after geotechnical logging, metre marking, geological logging and photographing of the core was completed. All core measuring, core cutting, sampling, bagging and despatch procedures were completed at the Mokopane exploration premises under the full time supervision of a qualified geologist. The core material was placed in suitable metal core trays and transported on a daily basis from the drill site to the Mokopane core yard with a pickup truck (Figure 12-1). Geological core logging followed a comprehensive protocol and the level of detail is appropriate and fully compliant with standard industry practice.

**Figure 12-1**  
**Drill core transport in pickup truck**



### 12.1 Sampling Approach

The objectives of core sampling were to provide suitable samples for laboratory analyses of the selected mineralised zones identified during logging. A primary concern was to be able to relate assay data with the geological layering and the relative abundance of the Ti-magnetite mineralisation which often varied on a decimetre scale. The following sampling approach and protocol was adopted by Frontier:

- Sample lengths in poorly-layered homogenous zones were kept at a 0.5 m or 1.0 m interval
- Sample lengths in well-layered zones or zones with variable lithologies were matched to lithological contacts and varied between 0.25 m and 1.0 m
- Half core (NQ core size) was sampled for geochemical analyses

## 12.2 Sampling Procedure

Drillcore sampling was based on industry standard sampling methodology. The following protocols were used by Frontier at the Mokopane exploration office (Figure 12-2) for the individual stages of core sampling:

### Core Marking and Cutting

- Core sections aligned to maintain core continuity, dip of layering identified and core metre-marked with a black waterproof pen
- individual sampling zone identified by the geologist
- Median (longitudinal) cut line marked along the core with a blue waterproof wax pencil or black permanent marker perpendicular to the dip of layering
- Sampling intervals defined by the geologist and marked with a blue waterproof wax pencil across the core (cross cut lines)
- The cross cut lines marked with “from – to” depths on the outside of the core using a blue waterproof wax pencil
- Core cut along the median line and cross cut lines using a diamond core saw (Figure 12-3)
- Sampling of core
- Remarketing of remaining half core in core trays with “from - to” depths

**Figure 12-2**  
**Core logging and core marking facilities**



**Figure 12-3**  
**Core cutting facility**



#### Bagging, Ticketing and Sampling

- Pre-numbered ticket book with tear-off triplicate sample ticket numbers is prepared by geologist with “from - to” depths and a brief description of sample against each number in ticket book. Ticket book preparation includes inclusion of QA/QC samples (Figure 12-4)
- Plastic sample bags prepared and laid out in numerical order with a sample number ticket placed inside bag, a second ticket stapled on the outside of the bag and sample number written on outside of bag with a permanent marker pen
- Core samples and QA/QC samples added to sample bags
- Final check for correct sample labelling and numbering by geologist
- Plastic sample bags sealed – triple folding of top of bags and stapling
- Sample bags placed into large polyweave sacks and sealed with cable ties for despatch to the laboratory. Each sack has project name, batch number, number of samples and range of sample numbers in permanent marker pen written on outside of polyweave sack

**Figure 12-4**  
**Sampling utensils; ticket book and Certified Reference Material (CRM) in inset**



Documentation and Sample Delivery to Laboratory – Chain of Custody

- Sample details – borehole number, “from – to” depths, sample width, sample number, brief description are recorded in the project Sample Ledger
- Sample numbers, analyses requirements, date of delivery, person responsible for delivery are recorded in a Sample Submission Sheet which has a specific submission sheet number
- Samples delivered to Set Point Laboratory in Mokopane, about 800 m from the exploration premises, along with Sample Submission Sheet.
- Set Point Laboratory checks the sample labelling and sample condition and issues a Sample Reception Record with a specific job number emailed to Frontier confirming the sample details and analyses requirements
- Frontier maintains a Sample Submission Summary sheet which matches the details of the Frontier Sample Submission Sheet and laboratory Sample Reception Record



## 13 SAMPLE PREPARATION, ANALYSES AND SECURITY

### 13.1 Sample Preparation

Core samples were delivered to the Set Point Laboratory (SPL) at Mokopane along with Frontier's Sample Submission Sheet. Initial sample preparation was undertaken at SPL's Mokopane laboratory facilities while the analytical process was conducted at SPL's laboratory in Johannesburg. Sample preparation was carried out in a dust-controlled area with extractor systems in the crushing area.

SPL is an ISO 17025 accredited analytical laboratory specialising in geo-chemical exploration analyses. SPL uses the following procedures and protocols for sample preparation:

- Checking received samples
  - Correct samples present
  - Samples labelled clearly
  - Sample bags in good condition, no spillage or leaking
  - Moisture content of samples noted
  - Client notified if any problems present
  - If above criteria are met then a Sample Reception Record is generated with a specific job number, date, sample details and analyses requirements which is emailed to client
- Samples dried at 110°C if required. SPL has a separate "Report for Drying of Samples"
- Samples weighed and recorded
- Samples crushed in Jaw Crusher and crushed material placed in new labelled plastic bag. Jaw crusher cleaned after every sample with crushed quartz and compressed air
- Coarse crushed material is further crushed in a Rhino Crusher to >80% <2.8mm
- Sample material split in a Jones Riffle Splitter. Split to be analysed placed in a new labelled bag. Remainder of sample material returned to original bag and stored for 3 months / returned to client as Coarse Reject Split. Splitter and trays cleaned with compressed air. SPL has a separate report "Procedure for Splitting of Samples"
- Sample split to be analysed milled in a Labtech Essa LM2 mill for 5 minutes to achieve >90% <106µm. Equipment is cleaned with water and compressed air
- Milled sample is emptied into a tray or onto a paper sheet and returned to sample bag
- Aliquot for assay taken from milled sample bag and samples are repacked. SPL has a separate report "Procedure for Repacking of Samples"
- Sample aliquots are despatched to the SPL in Isando, Johannesburg for sample analyses 3 times per week using laboratory drivers and vehicles
- Performance of the Rhino crusher and mill is monitored and results of screening is reported and made available to the client on request. SPL has a separate report "Procedure for Screening of Samples"

### 13.2 Sample Analysis

Prepared sample aliquots were delivered from SPL's Mokopane facilities to SPL in Isando, Johannesburg for sample analyses.

Samples from the three boreholes VK2, VL2 and VL3 drilled during the 2010 campaign were analysed for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub>, Cu and Ni.

Samples from the 11 boreholes drilling in 2011 (Table 11-1) were analysed for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub> and Cu and also for Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, CaO and MgO.

Specific Gravity (SG) measurements were conducted on all samples from the 2011 drilling and were subsequently determined for the three boreholes drilled in 2010. Sulphur (S) was only determined for boreholes VK10, VK13, VL2 and VL3.

The following analytical methods were performed by SPL:

- Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, CaO and MgO were analysed on a fused glass disk with an X-ray fluorescence spectrometer (XRF)
- Cu, Ni were analysed by Inductively Coupled Plasma (ICP) after an aqua regia digestion
- S was analysed with a LECO induction furnace
- SG measurements were determined on pulverised material with a gas pycnometer

SPL is an accredited facility under the South African National Accreditation System (SANAS) in accordance with the recognised international standard ISO/IEC 17025:2005. The following analyses techniques are accredited with the following analyses ranges:

Table 13-1 Set Point Laboratories accreditation details for the various analytical methods				
Element	Method Code	Description	Detection Limit	Accreditation Range
Fe <sub>2</sub> O <sub>3</sub>	M451	XRF fused disk	0.06%	0.1 – 52%
V <sub>2</sub> O <sub>5</sub>	M451	XRF fused disk	0.23%	0.23 – 10%
TiO <sub>2</sub>	M451	XRF fused disk	0.03%	0.09 – 32.8%
SiO <sub>2</sub>	M451	XRF fused disk	0.82%	11.2 – 99.8%
Al <sub>2</sub> O <sub>3</sub>	M451	XRF fused disk	0.20%	0.8 – 58.8%
CaO	M451	XRF fused disk	0.06%	0.14 – 65.3%
MgO	M451	XRF fused disk	0.30%	0.3 – 43%
P <sub>2</sub> O <sub>5</sub>	M451	XRF fused disk	0.02%	0.07 – 11.9%
Cu	M445	Aqua Regia digest with ICP finish	10 ppm	10 – 10 000 ppm
Ni	M445	Aqua Regia digest with ICP finish	10 ppm	10 – 10 000 ppm
S	522	LECO		Not accredited
SG	805	Gas pycnometer		Not accredited

SPL reported the analytical results in MS Office Excel spreadsheet format by electronic mail and printed hardcopies of the assays certificates on a SPL letterhead which were posted to Frontier.

SPL's spreadsheet with sample numbers and assay results were merged with the sample records from Frontier's Sample Ledger which include the borehole number, sample "from – to" depth, sample width and sample number details. The combined data were then electronically stored for each borehole in the Sample Analyses Sheet.

### 13.3 Sample Security

All drillcore is stored in stackable core trays inside the Mokopane field office which is locked when work is not in progress (Figure 13-1). Sample pulps and coarse rejects are also stored in the field office (Figure 13-2) and only Frontier office and field staff has access to the premises which are in a relatively secure area of Mokopane.

The individual sample pulps for each borehole are kept in large plastic bags which are well labelled and sealed with cable ties. The coarse rejects are stored in labelled and sealed polyweave sacks.

**Figure 13-1**  
**Core storage at Mokopane field office**



Complete chain of custody documentation exists from submission of the core samples to the Mokopane preparation facilities until receipt of the samples by Set Point Laboratories in Johannesburg.

**Figure 13-2**  
**Sample pulp and coarse rejects storage at Mokopane field office**



### 13.4 Quality Control Measures

Appropriate quality assurance and quality control (QA/QC) monitoring is a critical aspect of the sampling and assaying process in any exploration programme. Monitoring the quality of laboratory analyses is fundamental to ensuring the highest degree of confidence in the analytical data and providing the necessary confidence to make informed decisions when interpreting all the available information. Quality assurance (QA) may be defined as information collected to demonstrate that the data used further in the project are valid. Quality control (QC) comprises procedures designed to maintain a desired level of quality in the assay database. Effectively applied, QC leads to identification and corrections of errors or changes in procedures that improve overall data quality. Appropriate documentation of QC measures and regular scrutiny of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

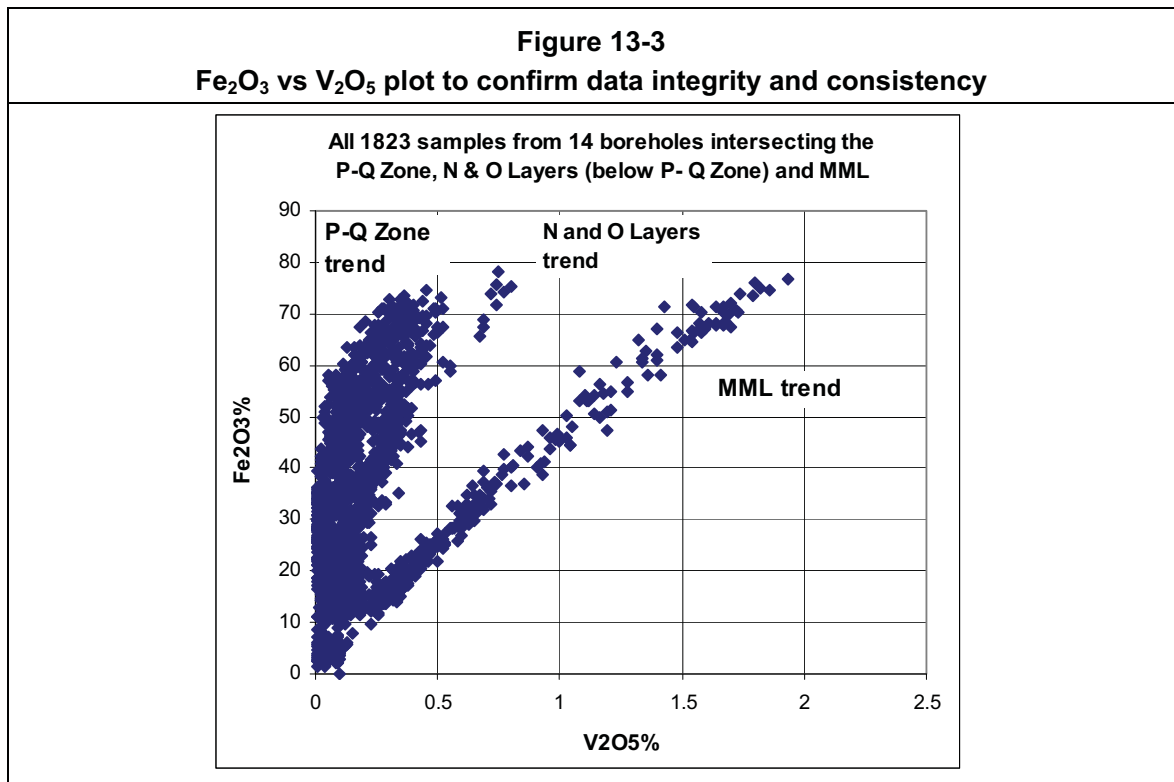
In order to ensure quality standards are met and maintained, planning and implementation of a range of external quality control measures is required. Such measures are essential for minimising uncertainty and improving the integrity of the assay database and are aimed to provide:

- An integrity check on the reliability of the data
- Quantification of accuracy and precision
- Confidence in the sample and assay database
- The necessary documentation to support database validation

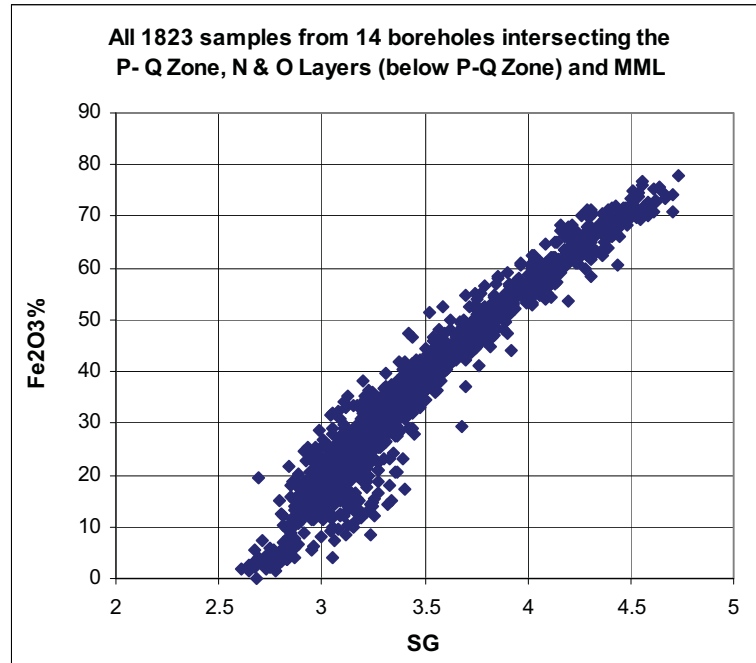
Certified reference materials (CRMs), quartz blanks and duplicate samples were randomly inserted into the batches prior to submission to Set Point Laboratories (SPL). These control samples were inserted as part of a continuous sample number sequence and the QAQC samples were not obviously different from routine samples. The laboratories were unaware which samples were QAQC samples and what their composition was. This allowed for monitoring of the sample preparation procedure as well as monitoring the accuracy and precision of analyses.

Based on industry best practice CRMs were inserted into batches at a frequency of approximately 5% of the routine samples from 11 boreholes out of the 14 boreholes. Samples from the 3 boreholes VK2 (139 samples), VK4 (135 samples) and VK5 (181 samples) were submitted before CRMs were routinely inserted. Quartz blanks were inserted at a frequency of about 7% of the routine samples of all 14 boreholes. Coarse crushed and drill core duplicates were submitted to SPL to test the repeatability of the original assay results at a rate representing 2% of all routine samples. QAQC samples therefore constituted 14% of all samples analysed.

Additional tests were performed to query the consistency of the assay results. The  $Fe_2O_3$  versus  $V_2O_5$  concentrations and the  $Fe_2O_3$  versus SG generally follow tightly constrained trends as shown in the X-Y plots in Figure 13-3 and Figure 13-4. The latter plots contain all 1823 samples from the 14 boreholes and include assay data from narrow Ti-magnetite layers from the stratigraphic interval between the MML and the P-Q Zone. The results show the expected compositional patterns and a very good overall data integrity has therefore been achieved.



**Figure 13-4**  
**Fe<sub>2</sub>O<sub>3</sub> vs SG plot to confirm data integrity and consistency**



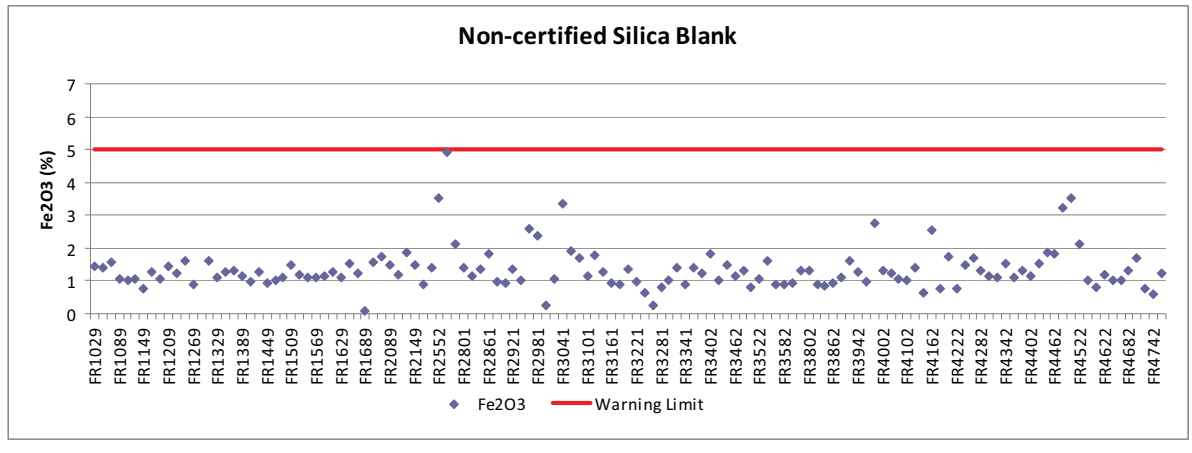
CRM, blank and duplicate sample compositions were plotted to evaluate the acceptability of the individual batches. Rare failures did occur, mostly relating to errors in the reporting of SG values and three cases of sample number switches were suspected. On request by MSA, SPL examined the anomalous assays and re-analysed the failed samples. All suspected sample switches and SG failures were confirmed and the re-determined SG and re-assay results produced acceptable values. The sample switches and SG failures were restricted to specific samples and a re-analysis of samples before and after the failures was therefore not required. No further action was taken or required.

As an additional QAQC measure, Frontier has adopted a set of documented standard operating procedures which cover all aspects of the exploration programme, and which are designed to ensure best practice and, ultimately, integrity of data. The specifics of the assay QAQC programme are discussed below.

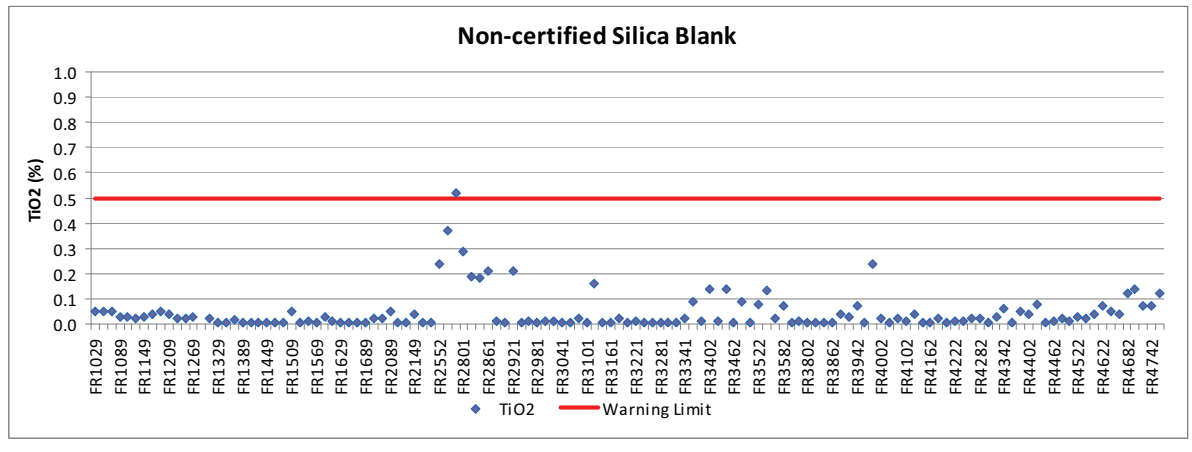
#### 13.4.1 Blanks

A total of 131 Blank samples were submitted to monitor inadvertent or voluntary contamination of samples. Non-certified washed river sand was used for this purpose and the results were plotted in control charts. Based on an assumed background value of 1% Fe<sub>2</sub>O<sub>3</sub> and a warning limit of 5% Fe<sub>2</sub>O<sub>3</sub>, all results pass (Figure 13-5). TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> have assumed background values of approximately 0.1% and 0.04% and a warning limit of 0.5% TiO<sub>2</sub> and 0.2% V<sub>2</sub>O<sub>5</sub>, respectively. All but one TiO<sub>2</sub> analysis passed and the results are shown in Figure 13-6 and Figure 13-7. Slightly elevated values could be due to variable levels of Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> contamination within the non-certified river sand material.

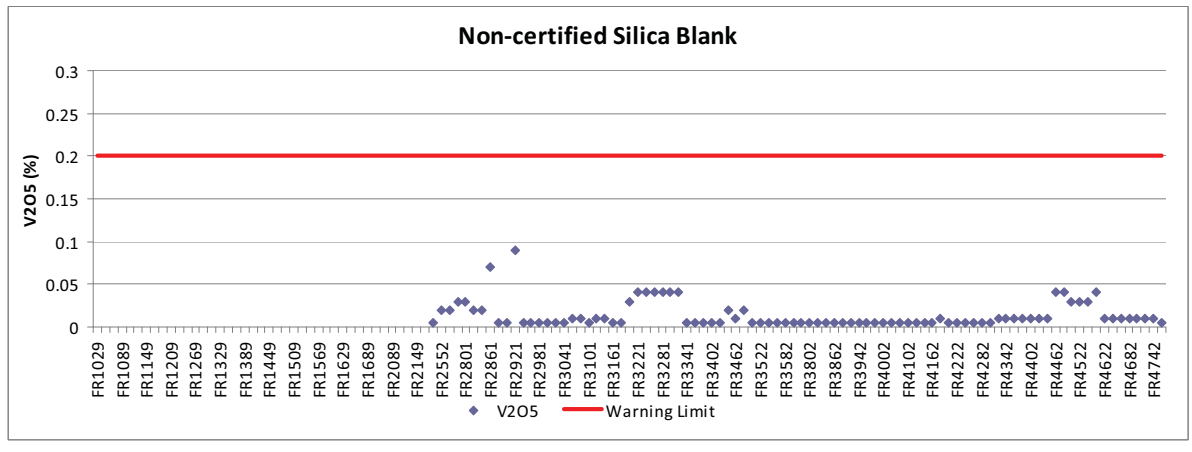
**Figure 13-5**  
**Control Chart for River sand Blank Sample for Fe<sub>2</sub>O<sub>3</sub>**



**Figure 13-6**  
**Control Chart for River sand Blank Sample for TiO<sub>2</sub>**



**Figure 13-7**  
**Control Chart for River sand Blank Sample for V<sub>2</sub>O<sub>5</sub>**

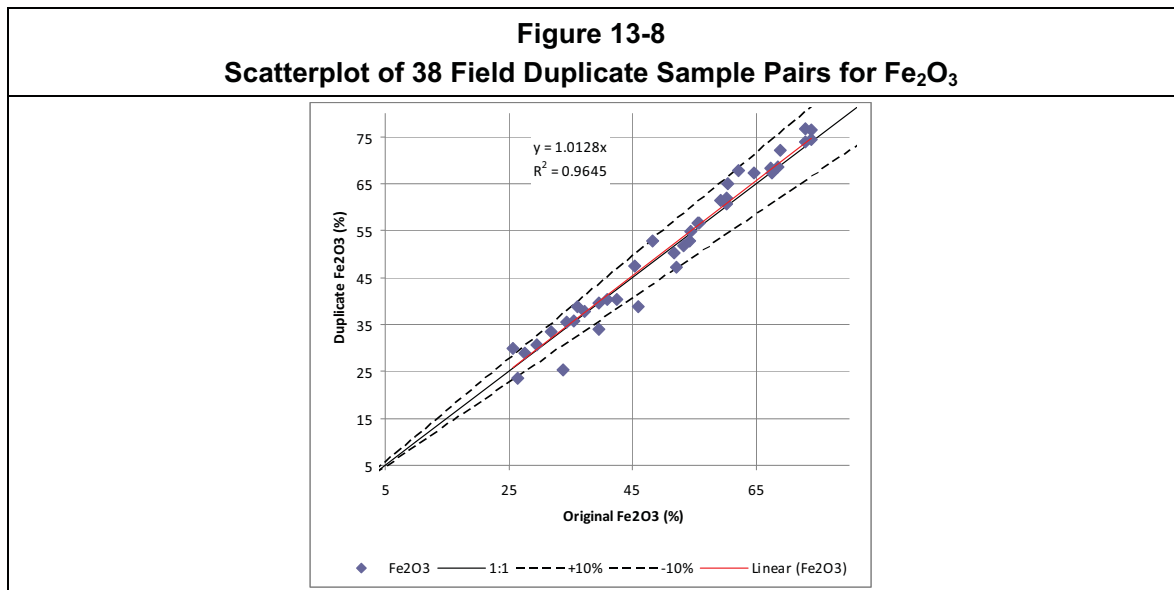


### 13.4.2 Duplicates

Field duplicates were created by splitting of excess coarse-crushed drill core material and quartered drill core and submitting these as blind checks as two individual batches rather than into the normal sample stream. These were submitted to SPL to monitor sampling, sample preparation and analytical precision.

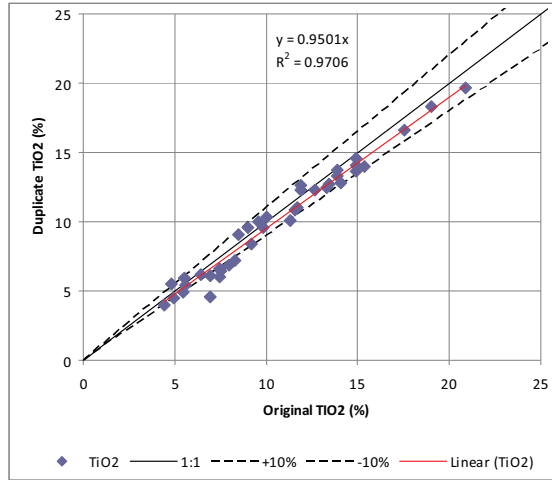
Results for field duplicate sample pairs are shown in Figure 13-8 to Figure 13-11 for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub> and P<sub>2</sub>O<sub>5</sub> by XRF analyses. The duplicate-original sample pairs are almost exclusively within ±10% limits, with a square of the correlation coefficient of 0.9645 for Fe<sub>2</sub>O<sub>3</sub>, 0.9706 for TiO<sub>2</sub>, 0.9786 for V<sub>2</sub>O<sub>5</sub> and 0.9979 for P<sub>2</sub>O<sub>5</sub>. Excellent reproducibility of results was thus achieved by SPL for XRF analyses. Relative Difference Percentage plots of the field duplicate sample pairs for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub> and P<sub>2</sub>O<sub>5</sub> are shown in Figure 13-8 to Figure 13-11 and also confirm the high level of analytical precision.

Results for laboratory duplicate sample pairs for Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> are shown in Figure 13-16 to Figure 13-18. As expected, these show higher reproducibility compared to field duplicates with the exception of one failure which is most likely due to a sample switch as Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> all show unacceptable repeat analyses for this particular sample pair.

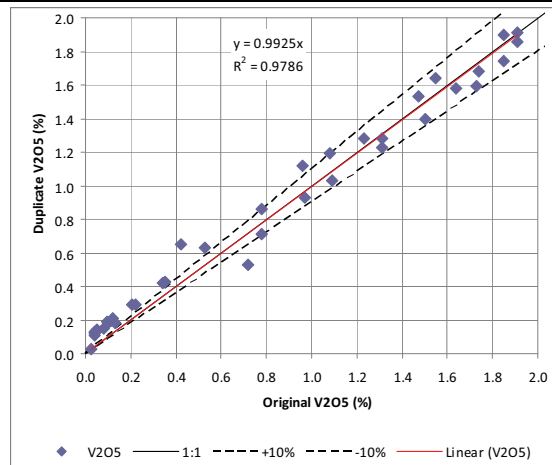




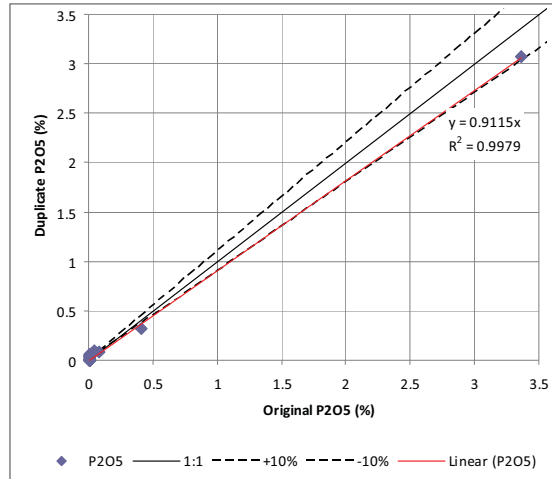
**Figure 13-9**  
**Scatterplot of 38 Field Duplicate Sample Pairs for TiO<sub>2</sub>**



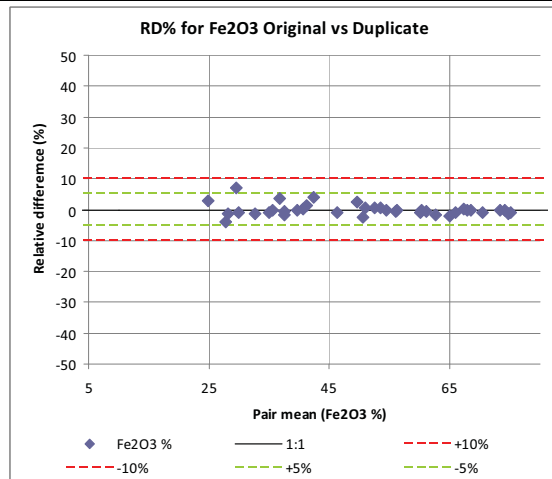
**Figure 13-10**  
**Scatterplot of 38 Field Duplicate Sample Pairs for V<sub>2</sub>O<sub>5</sub>**



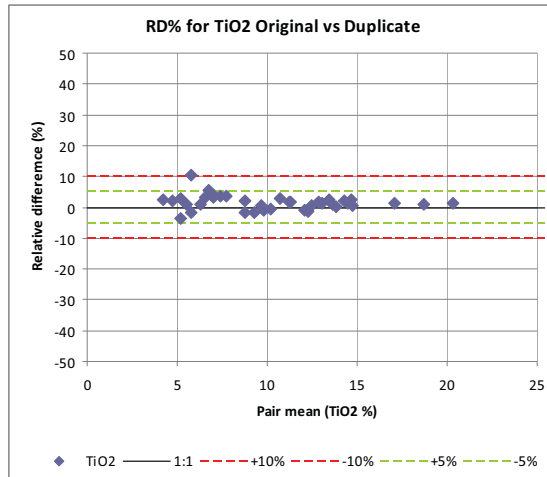
**Figure 13-11**  
**Scatterplot of 38 Field Duplicate Sample Pairs for P<sub>2</sub>O<sub>5</sub>**



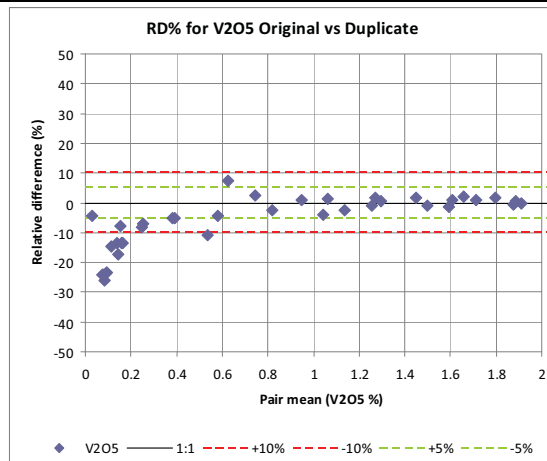
**Figure 13-12**  
**Relative Difference Percentage Plot of 38 Field Duplicate Sample Pairs for Fe<sub>2</sub>O<sub>3</sub>**



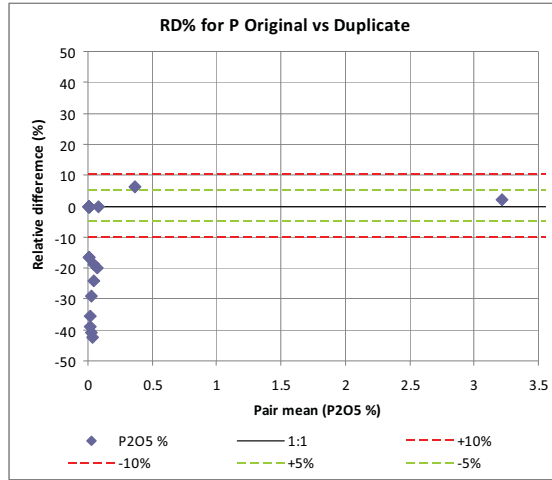
**Figure 13-13**  
**Relative Difference Percentage Plot of 38 Field Duplicate Sample Pairs for TiO<sub>2</sub>**



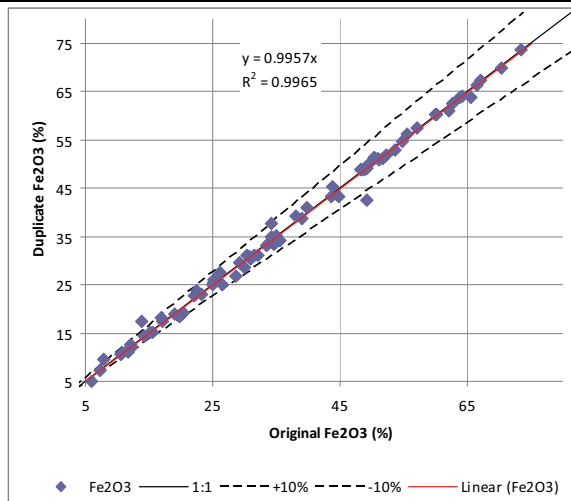
**Figure 13-14**  
**Relative Difference Percentage Plot of 38 Field Duplicate Sample Pairs for V<sub>2</sub>O<sub>5</sub>**



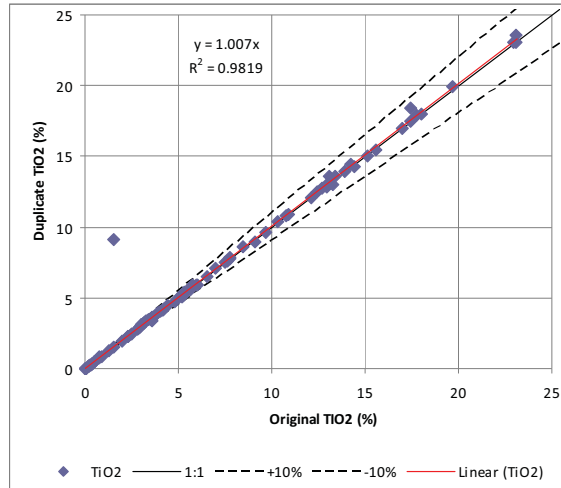
**Figure 13-15**  
**Relative Difference Percentage Plot of 38 Field Duplicate Sample Pairs for P<sub>2</sub>O<sub>5</sub>**



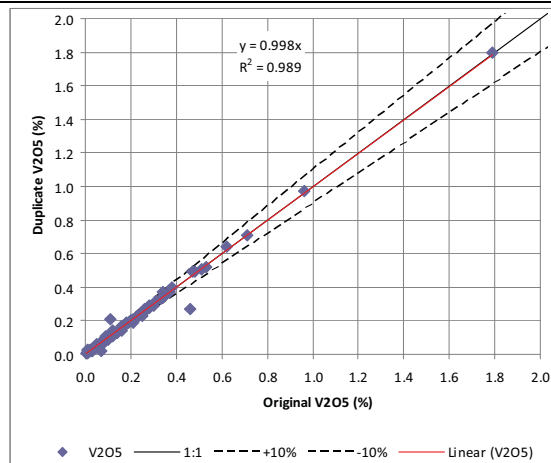
**Figure 13-16**  
**Scatterplot of 87 Laboratory Duplicate Sample Pairs for Fe<sub>2</sub>O<sub>3</sub>**



**Figure 13-17**  
**Scatterplot of 87 Laboratory Duplicate Sample Pairs for TiO<sub>2</sub>**



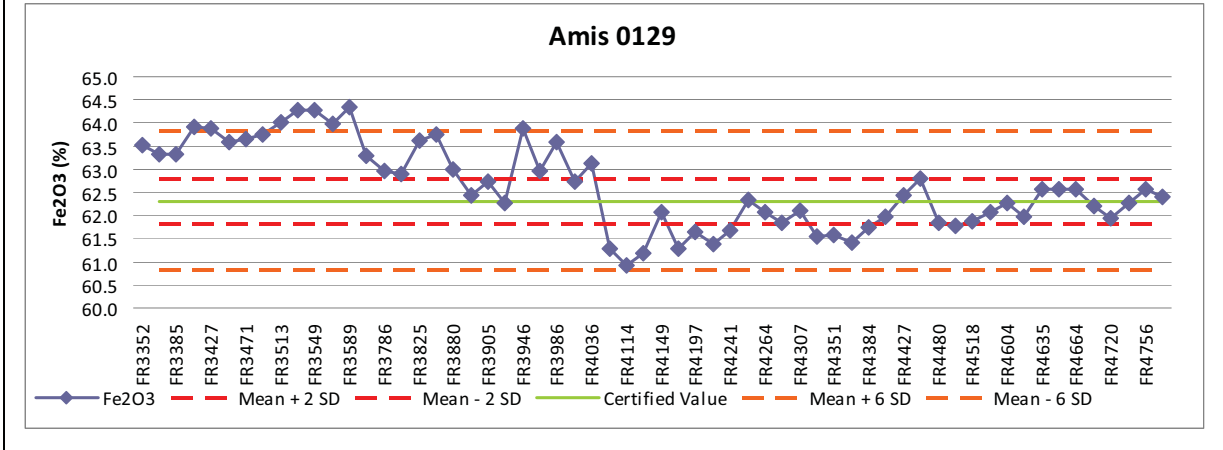
**Figure 13-18**  
**Scatterplot of 87 Laboratory Duplicate Sample Pairs for V<sub>2</sub>O<sub>5</sub>**



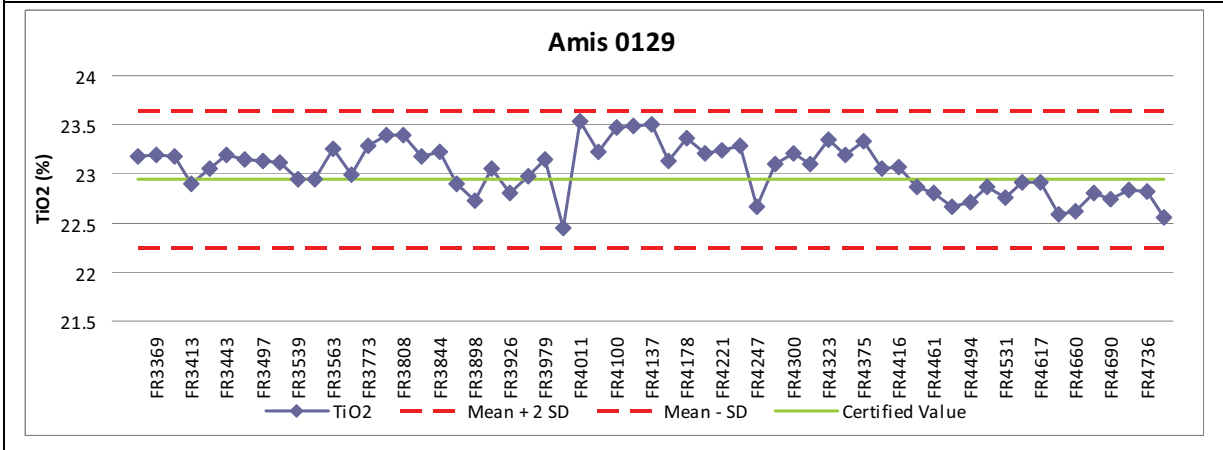
### 13.4.3 Standards

African Mineral Standards (AMIS) in Johannesburg, South Africa manufactures AMIS129 which was used as CRM during the 2009–2011 drilling campaign, in order to monitor the accuracy of Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub> in the laboratories. The performance of 60 randomly inserted AMIS129 into 11 boreholes across the 2010–2011 assay campaign is shown in the control charts for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> in Figure 13-19 to Figure 13-21. Results indicate that the analytical accuracy for TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> was not an issue at SPL but Fe<sub>2</sub>O<sub>3</sub> over-reported by up to 2% Fe<sub>2</sub>O<sub>3</sub> in six batches with samples from boreholes VK7, VK8, VK10 and VK14. An under-reporting of Fe<sub>2</sub>O<sub>3</sub> by up to 1.4% is observed in two batches comprising the samples from VK12 and VK13. The certified Fe<sub>2</sub>O<sub>3</sub> value for AMIS129 is 62.31 ±0.50% and the full Certificate of Analysis for AMIS129 is listed in Appendix 1.

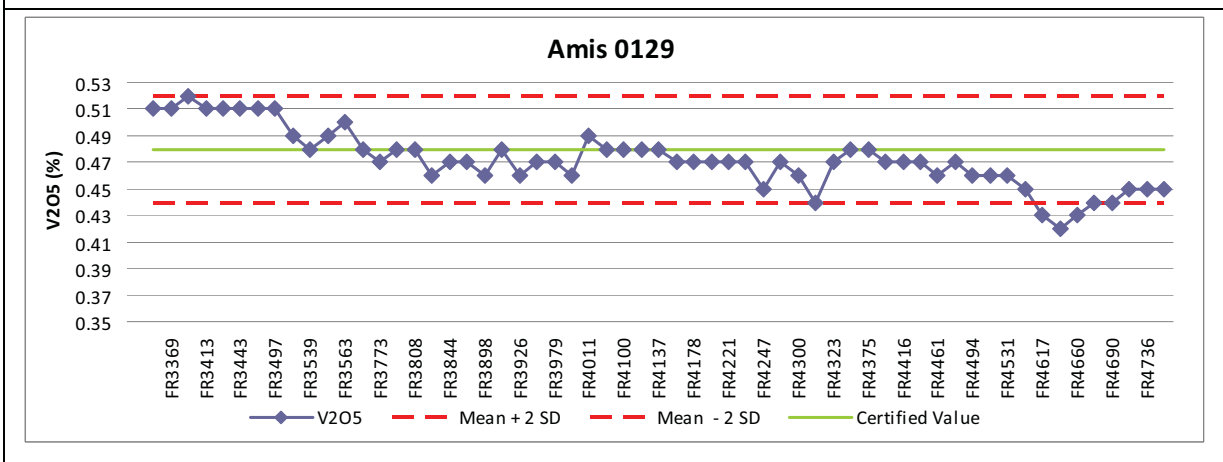
**Figure 13-19**  
**Control Chart Certified Reference Material AMIS129 for Fe<sub>2</sub>O<sub>3</sub>**



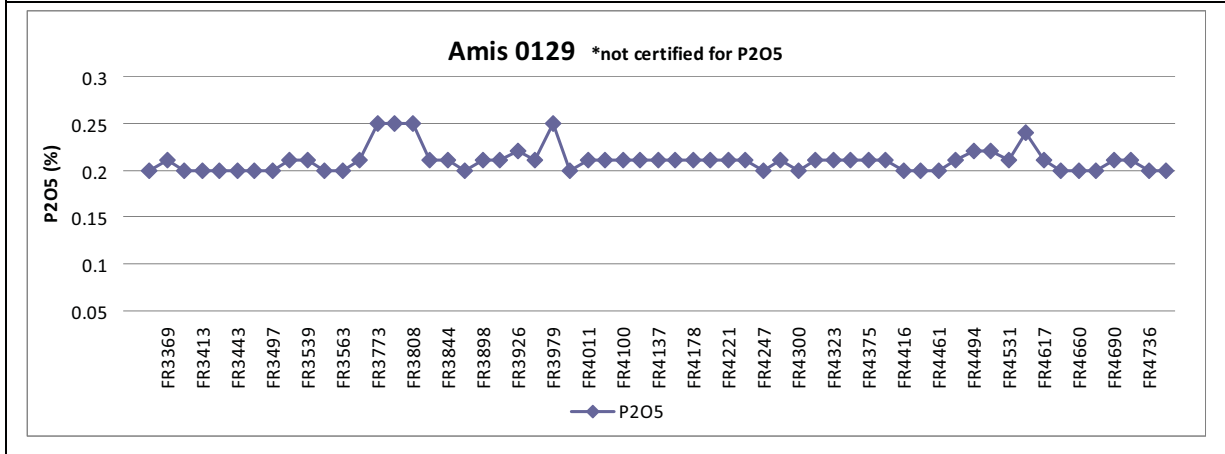
**Figure 13-20**  
**Control Chart Certified Reference Material AMIS129 for TiO<sub>2</sub>**



**Figure 13-21**  
**Control Chart Certified Reference Material AMIS129 for V<sub>2</sub>O<sub>5</sub>**



**Figure 13-22**  
**Control Chart Certified Reference Material AMIS129 for P<sub>2</sub>O<sub>5</sub>**



#### 13.4.4 Inter-Laboratory Comparisons

A selection of about 8% of the samples submitted to SPL was submitted to Genalysis in Johannesburg, South Africa acting as the umpire laboratory. The objective of this exercise was a check on the primary laboratory SPL for the elements Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub>, Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, CaO, MgO, S and specific gravity (SG). Genalysis Johannesburg facilities are accredited in accordance with ISO/IEC 17025:2005 but full accreditation for the XRF analytical method is still pending for the Johannesburg laboratory.

Genalysis used method code FB1/XRF10 which entails a lithium borate fusion followed by standard XRF analyses. Genalysis reports higher non-accredited ranges for all elements (Table 13-2) compared to the accredited ranges of SPL (Table 13-1).

**Table 13-2**  
**Genalysis Laboratory details for the various analytical methods**

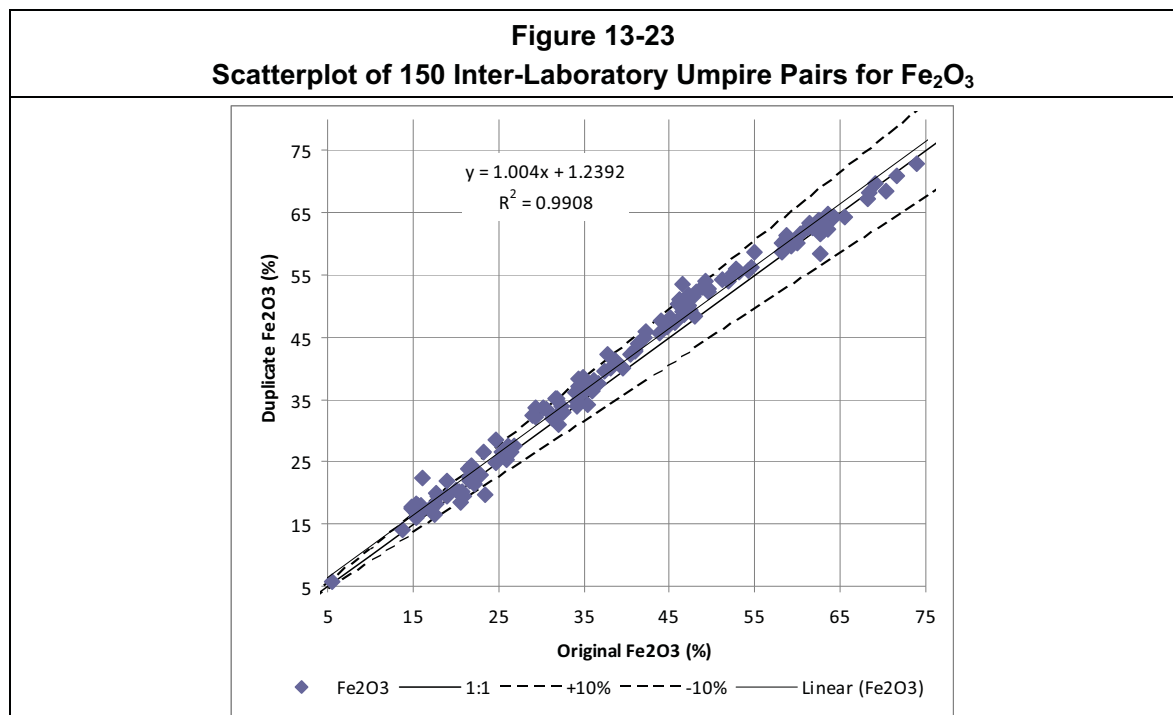
Element	Method Code	Description	Detection Limit	Quoted Range
Fe <sub>2</sub> O <sub>3</sub>	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
V <sub>2</sub> O <sub>5</sub>	FB1/XRF10	XRF fused disk	0.005%	0.005 – 10%
TiO <sub>2</sub>	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
SiO <sub>2</sub>	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
Al <sub>2</sub> O <sub>3</sub>	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
CaO	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
MgO	FB1/XRF10	XRF fused disk	0.01%	0.01 – 100%
P <sub>2</sub> O <sub>5</sub>	FB1/XRF10	XRF fused disk	0.002%	0.002 – 100%
S	FB1/XRF10	XRF fused disk	0.001%	0.001 – 40%
SG	SG/PYCN	Gas pycnometer		Accredited

Note: Accreditation for XRF method and range of individual element concentrations are still pending

A total of 151 samples including CRMs and blanks were analysed by Genalysis by XRF and the SG for each sample determined by gas pycnometry. The results between the two laboratories agree closely for Fe<sub>2</sub>O<sub>3</sub> (coefficient of correlation, with R<sup>2</sup> of 0.991), for TiO<sub>2</sub> (R<sup>2</sup> of 0.997), for V<sub>2</sub>O<sub>5</sub> (R<sup>2</sup> of 0.990) for P<sub>2</sub>O<sub>5</sub> (R<sup>2</sup> of 0.999) and SG (R<sup>2</sup> of 0.975) and are shown in Figure 13-23 to Figure 13-27. The majority of the results lie within ±10% of a 1:1 line. The results for one sample pair were excluded because SPL was unable to repeat a questionable analysis as the remaining pulp had already been delivered to the umpire lab. The initially reported results from the 151 samples from the umpire lab were rejected by MSA due to apparent sample switches during the preparation of fusion disks and the entire batch was re-analysed on newly prepared fusion disks. The revised results are presented in Figure 13-23 to Figure 13-27.

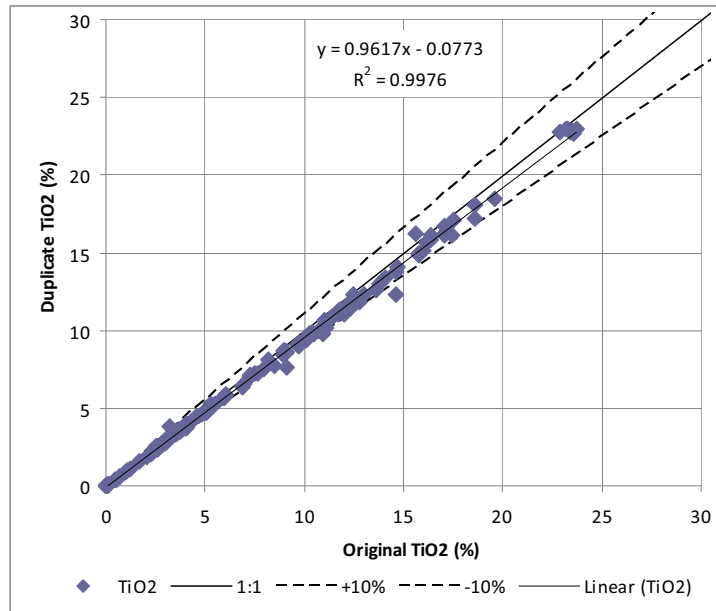
A noteworthy feature is the slight but systematic over-reporting by SPL compared to the umpire laboratory for V<sub>2</sub>O<sub>5</sub> concentrations above 0.5% (Figure 13-25). No certified reference material with a similar matrix to the vanadiferous Ti-magnetite samples is available and it is therefore not possible to determine which of the two laboratories reported accurate results. In order to monitor the range from 0.5% to 2.0% V<sub>2</sub>O<sub>5</sub> it is therefore recommended to create an in-house standard from V-enriched MML material and have the latter sample analysed by various laboratories and analytical techniques. This has been done successfully on other Bushveld projects where similar V-enriched Ti-magnetite material was analysed.

The relative difference percentage (RD) for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub> and SG of the primary versus umpire laboratory sample pairs are shown in Figure 13-28 to Figure 13-32. All analyses of the 150 primary-umpire pairs fall within the 10% relative difference envelope. The wider scatter of TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub> and P<sub>2</sub>O<sub>5</sub> at very low concentrations is expected and acceptable and mainly a function of differences in the lower detection limits between the two laboratories.

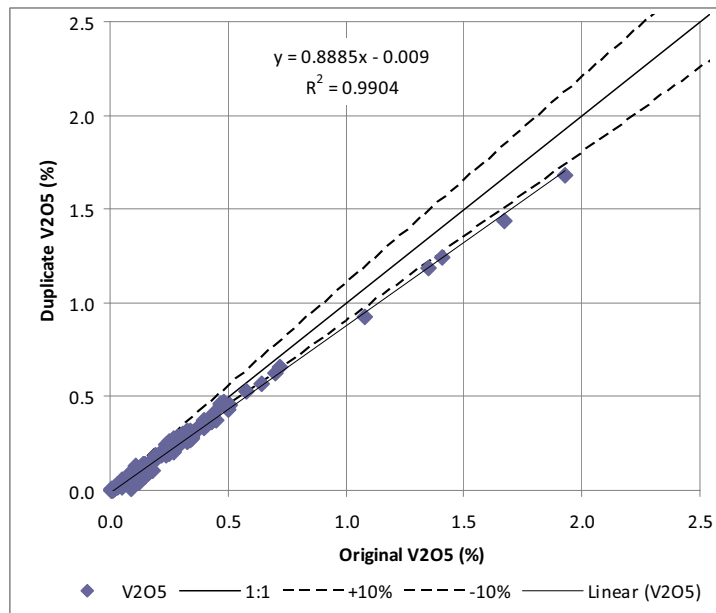




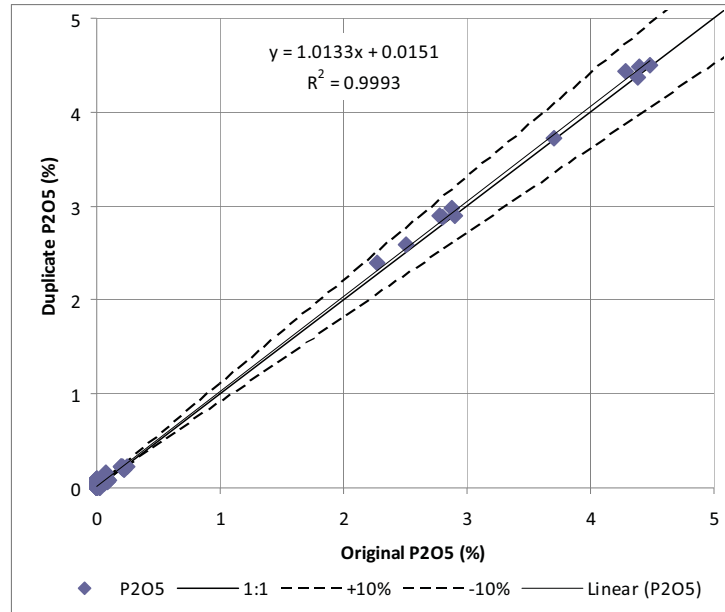
**Figure 13-24**  
**Scatterplot of 150 Inter-Laboratory Umpire Pairs for TiO<sub>2</sub>**



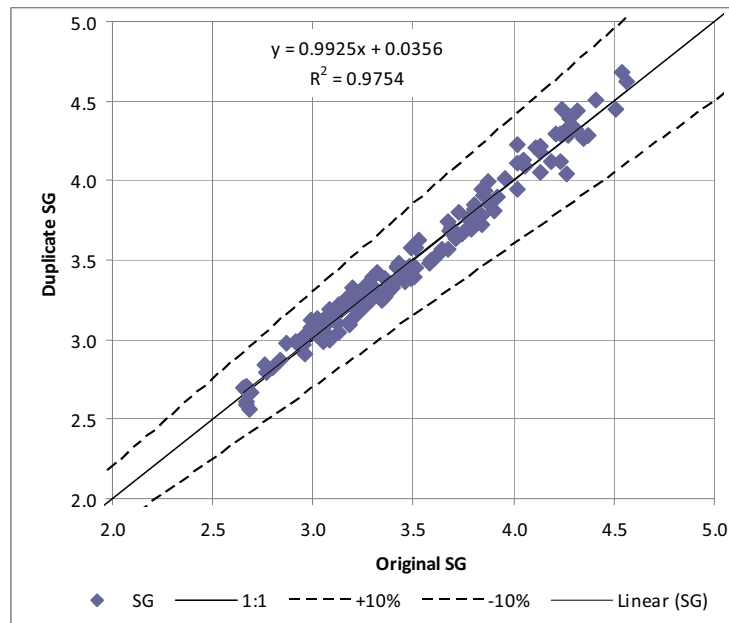
**Figure 13-25**  
**Scatterplot of 150 Inter-Laboratory Umpire Pairs for V<sub>2</sub>O<sub>5</sub>**



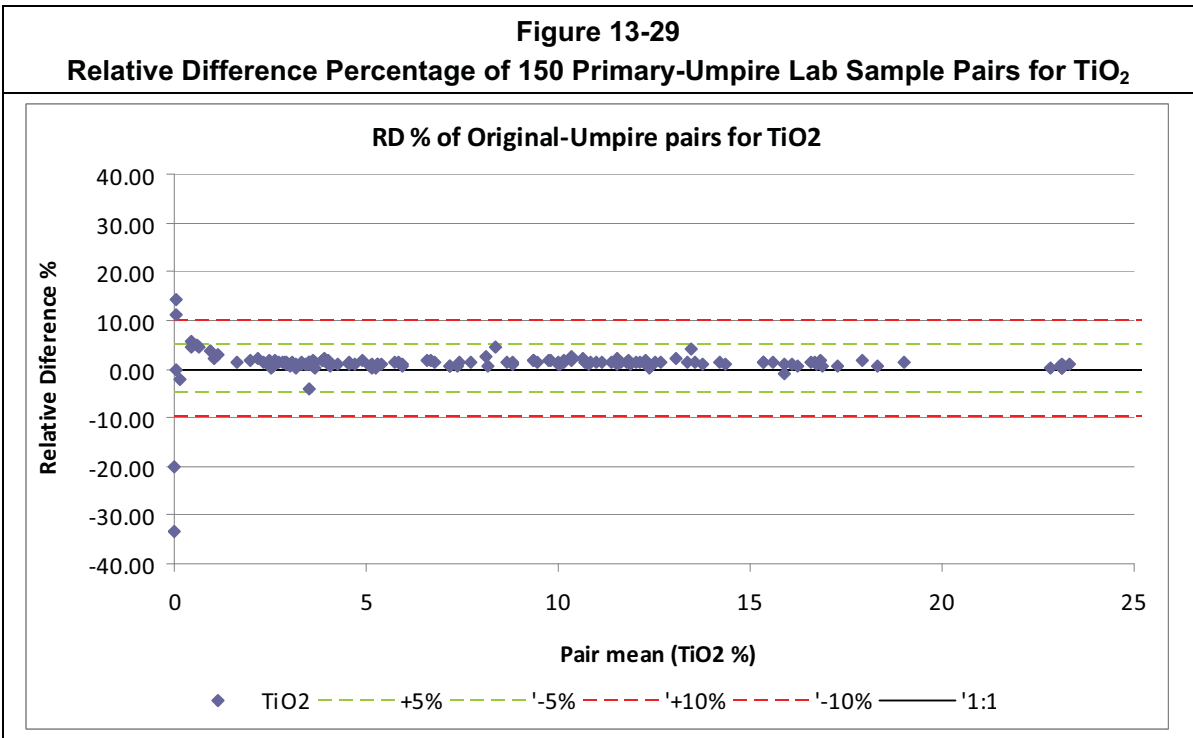
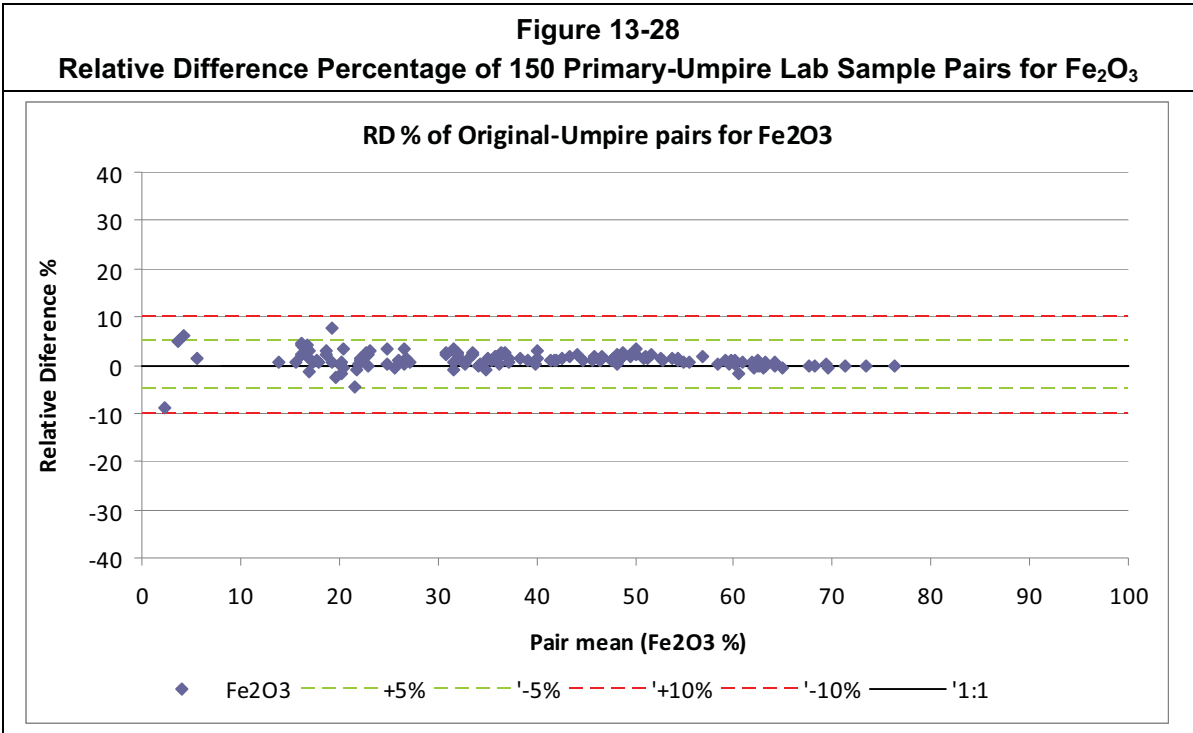
**Figure 13-26**  
**Scatterplot of 150 Inter-Laboratory Umpire Pairs for P<sub>2</sub>O<sub>5</sub>**

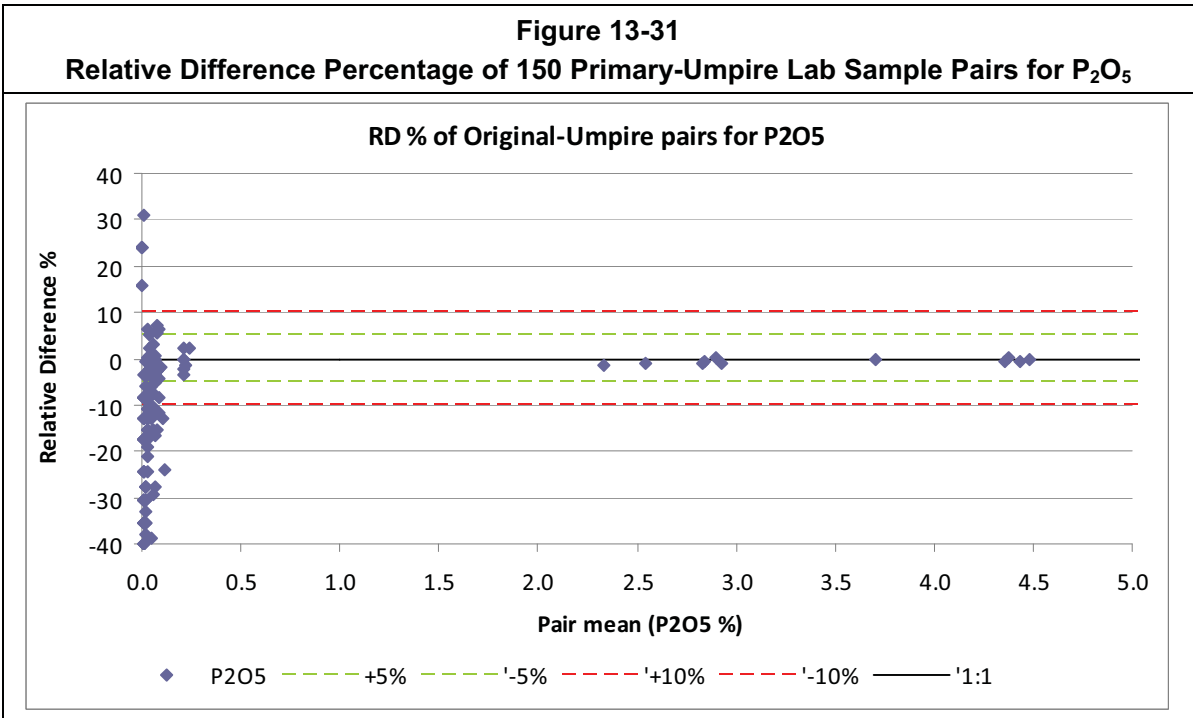
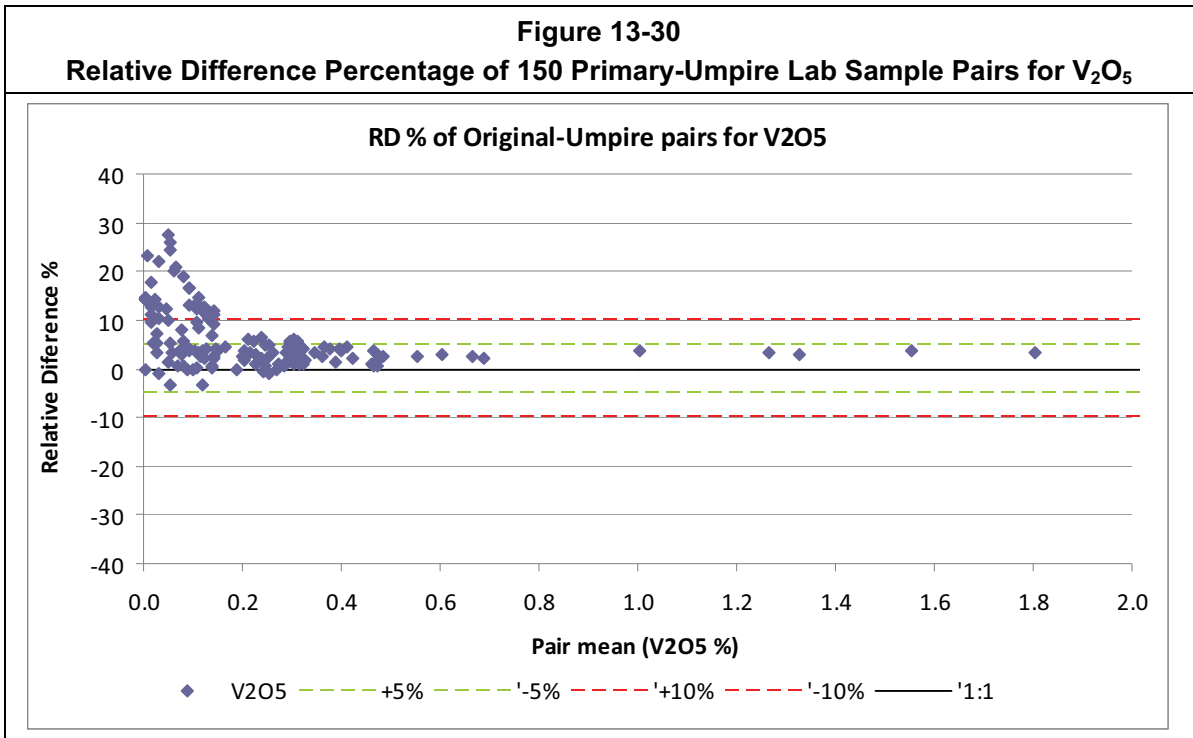


**Figure 13-27**  
**Scatterplot of 149 Inter-Laboratory Sample Pairs for SG**

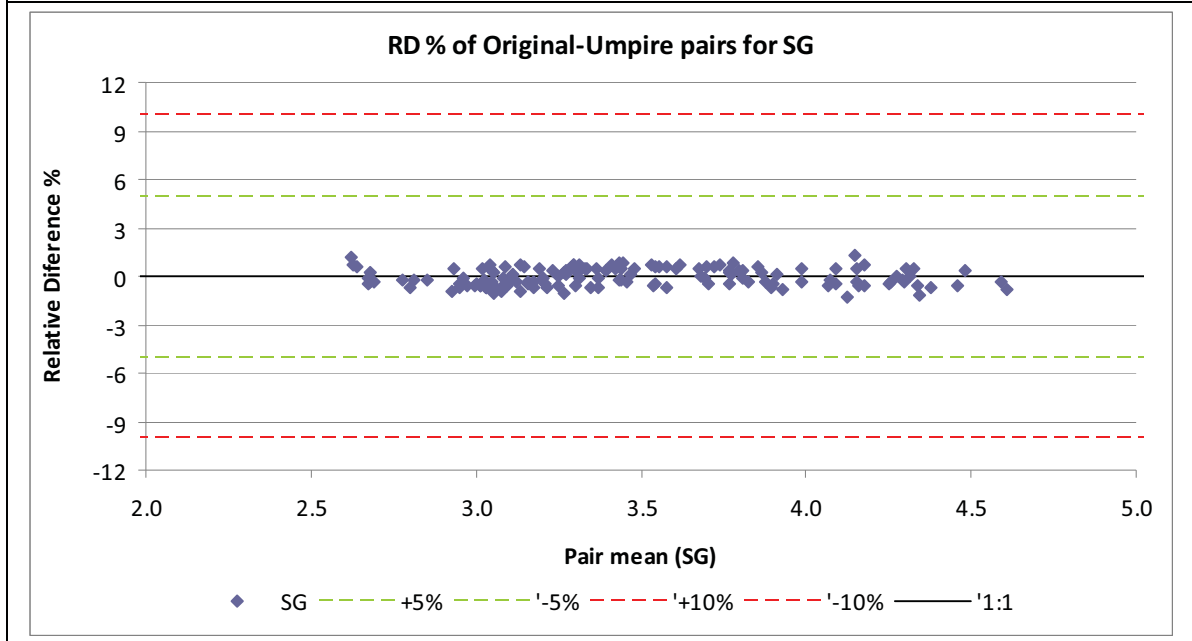


Note: One sample requested for re-analysis could not be repeated by the umpire lab due to insufficient sample material





**Figure 13-32**  
**Relative Difference Percentage Plot of 149 Primary-Umpire Sample Pairs for SG**



Note: One sample requested for re-analysis could not be repeated by the umpire lab due to insufficient sample material

### 13.5 Statement of Opinion on the Sample Preparation, Security and Analysis

All aspects of core handling, marking, logging, cutting, bagging, labelling and submission to SPL's nearby sample preparation facilities are covered by well-designed protocols to ensure that all routine activities are conducted with maximum consistency.

The current procedure to sample narrow lithological layers resulted in very variable sample lengths (0.25 cm to 1 m) and it is suggested that a standard sample length of 1 metre is adopted for future sampling. Discretion can be used when sampling the MML and the P-Q Layers but the considerable width of these well-mineralised layers can be adequately sampled with 1 metre intervals. The generally VTM-poor parting between the MAG3 and MAG4 of the MML should be sampled as a single unit similar to the VTM-poor interval within the P-Q package.

Drill core handling and storage as well as core sampling and excess pulp storage are all conducted in a safe and secure manner. A point of concern is that the pulps and coarse rejects from the 2010 drilling were discarded by SPL but Frontier has since undertaken to store all excess sample material at their Mokopane premises.

MSA is of the opinion that the sampling and analytical procedures and number of QAQC samples inserted into the sample stream are appropriate for the current level of the project, the type of the deposit and for the analytical technique used. The majority of the CRMs and all quartz blanks show acceptable performance for Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> over the period of the



sampling campaign and most duplicate samples reported to within 10% of  $x=y$  slope on a scatterplot.

The analytical results from the primary and the umpire laboratories agree very well and therefore validate the element concentrations and SGs obtained from the primary laboratory.

Based on these results, it is concluded that the sampling and assay data from the drilling campaign are acceptable for use in a mineral resource estimate. It is however recommended that certified quartz blanks are used in all future batches and that a more thorough monitoring and rejecting of analytical results is practised with respect to the reported  $\text{Fe}_2\text{O}_3$  concentrations of CRM AMIS129. The number of inserted field duplicates needs to be increased from the current frequency of 2% to 5% and inserted into the normal sample stream.

It is further recommended that internal V-rich standards are produced and analysed by several laboratories and then inserted into future sample batches to monitor and verify concentrations above 0.5%  $\text{V}_2\text{O}_5$  in samples from the MML.

Sulphur analysis should be carried out on all future samples and also retrospectively determined from boreholes which were previously not analysed for this potentially deleterious element. Sulphur can be added to the current suite of elements analysed by XRF, provided that appropriate levels of accuracy are achieved and documented.

Loss on ignition (LOI) determination should also be considered to obtain a qualitative measure of the amount of hydrated iron oxides, particularly for boreholes where the Ti-magnetite mineralisation is intersected at shallow depth and within the zone of surface weathering.

The capturing and storage of data in individual spreadsheets might be adequate for early-stage projects but it is advisable to migrate all project data into a relational MS Access-based or similar database as the project advances.

## 14 DATA VERIFICATION

Criteria for assessing the validity of data used in the current mineral resource estimation is presented in Table 14-1 according to Table 1 of the JORC code (2004).

<b>Table 14-1</b> <b>Check list of assessment and reporting criteria</b>	
<b>Criteria</b>	<b>Comment/Description</b>
Drilling techniques	Vertical diamond drillholes at NQ diameter
Logging	All drillholes were geologically logged by qualified geologists. The logging was of an appropriate standard for grade estimation
Drill sample recovery	Recoveries are documented in borehole logs for all boreholes
Sampling methods	Core samples were collected with an average sample length of 50 cm MSA's observations indicated that the routine sampling methods were of a high standard and suitable for evaluation purposes
Quality of assay data and laboratory tests	The assay database displays industry standard levels of precision and accuracy and meets the requirements for use in a Mineral Resource estimate
Verification of sampling and assaying	An internal verification of sample assay data was carried out by means of inserting approximately 5% CRMs, 7% Blanks and 2% field duplicates into the sample stream constituting a QA/QC protocol
Location of data points	All of the drillhole collars have reportedly been surveyed by a qualified surveyor. Borehole collars have been observed by MSA in the field. Drillholes were not downhole-surveyed. Vertical boreholes drilled to 200 m below surface are accepted as being vertical for their entire length
Tonnage factors (in situ bulk densities)	An acceptable number of specific gravity readings were gathered for Mineral Resource estimation purposes
Data density and distribution	The level of data density, over the project areas is sufficient to assume geological and grade continuity for at least Inferred category Mineral Resource estimate for this type of mineralisation
Database integrity	Data were provided in an Access database for each project. MSA has checked the integrity of the database and considers that the database is an accurate representation of the original data collected
Dimensions	The Mineral Resource on the MML occurs over a length of 5 500 m north to south and 1 200 m east to west. It averages 8.5m in thickness and dips at an average of 18 degrees to the west. The Mineral Resource occurs from surface and has been constrained by modelled envelopes  The Mineral Resource on the P-Q Zone occurs over a length of 4 000 m north to south and 1200 m east to west. It averages 45 m in thickness and dips at an average of 22 degrees to the west. The Mineral Resource occurs from surface and has been constrained by the modelled envelopes
Geological interpretation	There is an adequate level of geological information for the current Mineral Resource estimation exercise

Criteria	Comment/Description
Domains	The project areas have been sub-divided into fault-blocks for the P-Q Zone
Compositing	Drillhole samples were retained at the length intervals appearing in the database
Statistics and variography	No variography was applied to either the MML or the P-Q Zone
Top or bottom cuts for grades	Top cut analysis was completed that indicated that top cutting was not appropriate. No grade caps or cut were applied
Data clustering	Drillholes were drilled on a widely-spaced grid across each deposit. No de-clustering was deemed necessary
Block size	25 m N by 25 m E by 5 m RL three dimensional block model for both the MML and the P-Q Zone
Grade estimation	Metal grades were estimated using Inverse-distance weighting for both the MML and the P-Q Zone. Grades were interpolated within a search ellipse representing the ranges of the anticipated Mineral Resource classification. The search ellipse orientation were aligned with the mineralisation envelope orientations
Mineral Resource Classification	The classification incorporated the confidence in the drillhole data and data distribution. All blocks below 200 m below surface have been assigned Inferred status due to data distribution, the lack of downhole survey data below this depth and considerations on the stripping ratio compared to existing iron ore mines
Cut-off grades	A range of cut-off grades has been selected for the purposes of Mineral Resource illustration
Mining Cuts	No mining cuts have been applied
Metallurgical factors or assumptions	No metallurgical studies are available for either the MML or the P-Q Zone
Audits and reviews	<p>The following audit and review work was completed by MSA:</p> <ul style="list-style-type: none"> <li>• a review of the database</li> <li>• a review of drillhole data collection protocols and QA/QC systems</li> <li>• a site-based review of the drillhole data and a site visit to the properties</li> <li>• QA/QC check audits by MSA</li> </ul>



## 15 ADJACENT PROPERTIES

Considerable work on Ti-magnetite layers was carried out on five contiguous farms immediately south of the Project area by Mining Corporation Ltd (MCL) during 1979 and 1980. MCL completed geological mapping, magnetic surveys, trenching and drilling over the mineralised strike distance of approximately 16 km.

Sixteen diamond drill holes totalling 2 141 m and 158 percussion holes totalling 2 687 m were drilled. The results were summarised in 1980 by Schutte in a Report for the Geological Survey of South Africa. A non-code compliant mineral resource of 419 million tonnes of magnetite containing 6.5 million tonnes of  $V_2O_5$  was calculated covering the Main Magnetite Layer (MAG 3 and MAG 4) and the two marker layers (MAG 1 and 2) to a depth of 80 m and the disseminated Ti-magnetite from the so-called "Lower Group" to a depth of 200 m.

The Lower Group comprises an 18 m to 25 m thick succession of predominantly feldspar-rich rocks (anorthosite) which contain between 10% and 50% disseminated Ti-magnetite (Schutte, 1980). Schutte did not apply a cut-off and his calculations are based on the estimated total amount of Ti-magnetite and the respective vanadium content contained in a hypothetical Ti-magnetite concentrate.

The Schutte report does not describe or include any metallurgical or techno-economic results.

## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

There is no recorded historical mineral processing or metallurgical testwork from the Ti-magnetite on the Project area.

However, MCL (Schutte, 1980) produced magnetic concentrates from the MML, intersected in drill core on the neighbouring farms, and determined the  $V_2O_5$  and  $TiO_2$  contents by standard X-Ray Fluorescence analyses (XRF).

The Ti-magnetite concentrate was produced via a bench-scale mechanical separation of split (halved) and crushed (-0.5 mm) drill core material into a magnetic and non-magnetic fraction. The relative weights of the two fractions were then used to determine the weight percentage of VTM for each sample. The percentage Ti-magnetite in the MML was reportedly between 67.7% and 74.8% and the VTM concentrate contained between 1.62% and 1.69%  $V_2O_5$ . The latter vanadium concentrations are almost identical with the 1.69%  $V_2O_5$  (after crushing, washing and screening) which Highveld Steel and Vanadium Corporation (now Evraz) reported for the MML at their Mapochs Mine in the Eastern Lobe of the BIC.

Crushing and milling parameters for the MML on the Mokopane Project are likely to be similar to the procedures used in existing Bushveld Ti-magnetite operations (e.g. Evraz) where the Ti-magnetite concentrate is pyrometallurgically treated to produce  $V_2O_5$ , FeV and pig iron.

No comparable studies or mining operations exist for the P-Q Layers and particularly the disseminated foot- and hanging-wall sequence (P-Q Zone) and appropriate processing and metallurgical testwork will need to be carried out going forward.

## 17 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

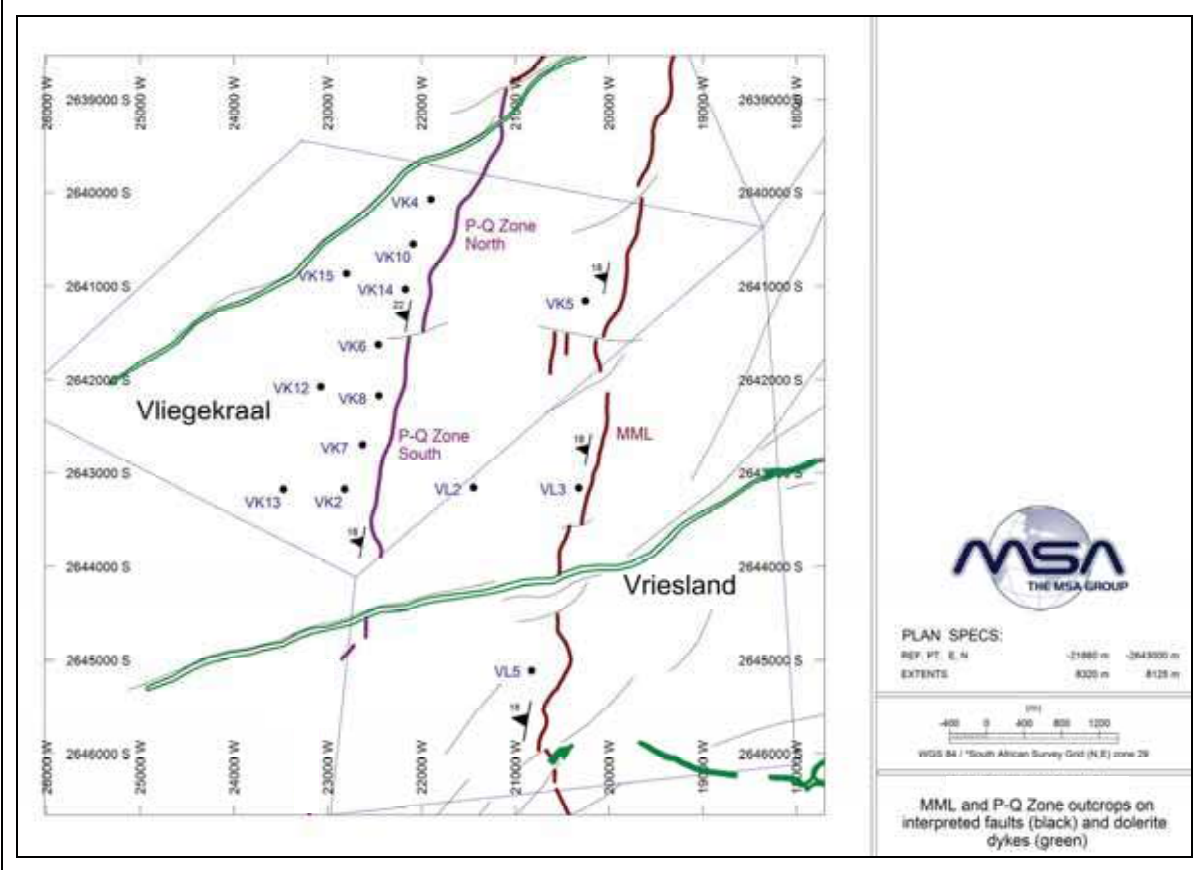
### 17.1 Data validation and preparation

#### 17.1.1 Input database validation

The database comprises collar, lithology, survey, sampling and assay data. The database was subjected to checks and validations when received from site. The data collection was done in accordance with the client's procedures.

The input database for the mineral resource estimation exercises consists of 3 485.79 m in 14 diamond drillholes (Figure 17-1). This was composed of 4 drillholes totalling 902.02 m of drilling on the MML and 10 drillholes totalling 2 583.77 m on the P-Q Zone. The drillhole collars are presented in Table 11-1. A total of 81 samples were used for the MML and 900 for the P-Q Zone (289 for P-Q Zone North and 611 for the P-Q Zone South). The P-Q Zone is divided into a northern and a southern Block separated by an east-west trending fault and the two domains were modelled separately. The average sample width of the drill core is approximately 50 cm.

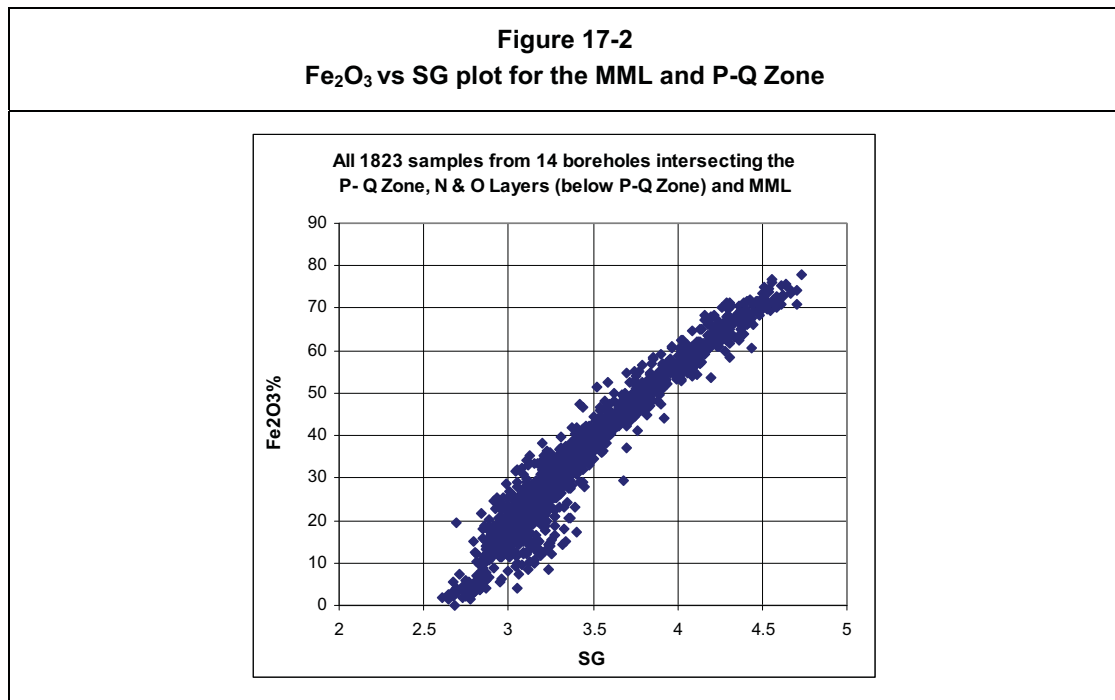
**Figure 17-1**  
Drillhole collars relative to MML and P-Q Ti-Magnetite layers outcrop



### 17.1.2 Density

Representative density measurements were undertaken by pycnometry at the Set Point Laboratory in Johannesburg, utilising the crushed pulps. There is no known discrepancy in these results relative to those from the Archimedes in-situ bulk density method, especially in the fresh rock. Therefore, the pycnometry density results are acceptable as the drillholes intersected the mineralised zones at depths exhibiting no weathering.

The density measurements also correspond well with the  $\text{Fe}_2\text{O}_3$  assay results (Figure 17-2) and this acts as a check against laboratory SG determinations.



### 17.1.3 Core recoveries

Core recoveries within the P-Q Zone and MML layers were good and were on average in excess of 95%. However, core recoveries for the shallow-depth borehole, VL3 were not made available.

### 17.1.4 Topography

The topography was derived from the borehole collar elevations. The latter compare closely with the available relief contours, which depict a flat-lying ground surface (see Figure 7-9).

The topographical surface was then translated to a level 5 m lower, to define the average base of the overburden, which varies between 0.85 m and 6.81 m, as intersected in the drilling. The overburden above the P-Q Zone might constitute an additional mineral resource should future drilling confirm that this highly weathered material is sufficiently enriched in Fe-Ti-oxide minerals.

### 17.1.5 Oxidation and weathering level

Lithological logging has differentiated levels of weathering, which correspond to the oxidised-fresh rock interface. Only one borehole, VL3, intersected mineralisation (the MML Zone) near-surface (Table 17-1). The oxidised zone was logged down to 30 m in that borehole. The Fe<sub>2</sub>O<sub>3</sub> grades and the densities in this shallow drillhole do not differ from the remaining drillholes, which intersected the mineralised zones at depth.

HOLE	SG	Fe <sub>2</sub> O <sub>3</sub>	MML Depth From (m)	MML Depth To (m)	Thickness in Borehole
VK05	3.87	52.97	126.62	135.44	8.82
VL02	3.85	51.45	395.52	404.12	8.60
VL03	3.87	55.40	20.74	30.15	9.41
VL05	3.84	55.19	98.23	106.89	8.66

The weathering / oxidation limit is therefore estimated at an average depth of 25 m across the farms, but ranges from 5 m to 30 m.

## 17.2 Geological interpretation and modelling

Datamine Studio 3 software was utilised for the three-dimensional modelling. The wireframes were constructed primarily on whole rock geochemistry and to a lesser extent on the lithotypes.

Unfortunately none of the drillholes intersected both Ti-magnetite layers of interest as they are 800 m apart vertically (compare intervals in Figures 17-3 and 17-6). The only data reflecting both mineralised zones is from a research hole (BV-1) which was drilled in 1991, in order to ascertain the stratigraphy of the Northern Limb of the Bushveld Complex. Borehole BV-1 also intersected the complete sequence of 21 magnetite layers present in the project area. It was drilled approximately 2 km west of the south-western corner of the farm Vriesland.

### 17.2.1 MML

The overall MML interval is typically composed of composite Ti-magnetite layers termed MAG 1 to MAG 4 by Ashwal et al., (2005) (Figure 17-3).

The MAG 3 and MAG 4 layers within the MML interval, which have the highest Fe<sub>2</sub>O<sub>3</sub> grades, were modelled as a composite for the purposes of the mineral resource estimation exercise. These layers usually have sharp contacts with the host gabbros and anorthosites at grades of approximately 40% Fe<sub>2</sub>O<sub>3</sub>. The MML, as defined here (MAG4 up to MAG3), averages 8.4 m in true thickness and includes a gabbro parting of approximately 1.5 m in width. This parting was not separated within the MML wireframe (Figure 17-3).

Geochemistry and lithotypes correspond well in the MML due to the massive and constrained nature of the Ti-magnetite mineralisation in the MML.

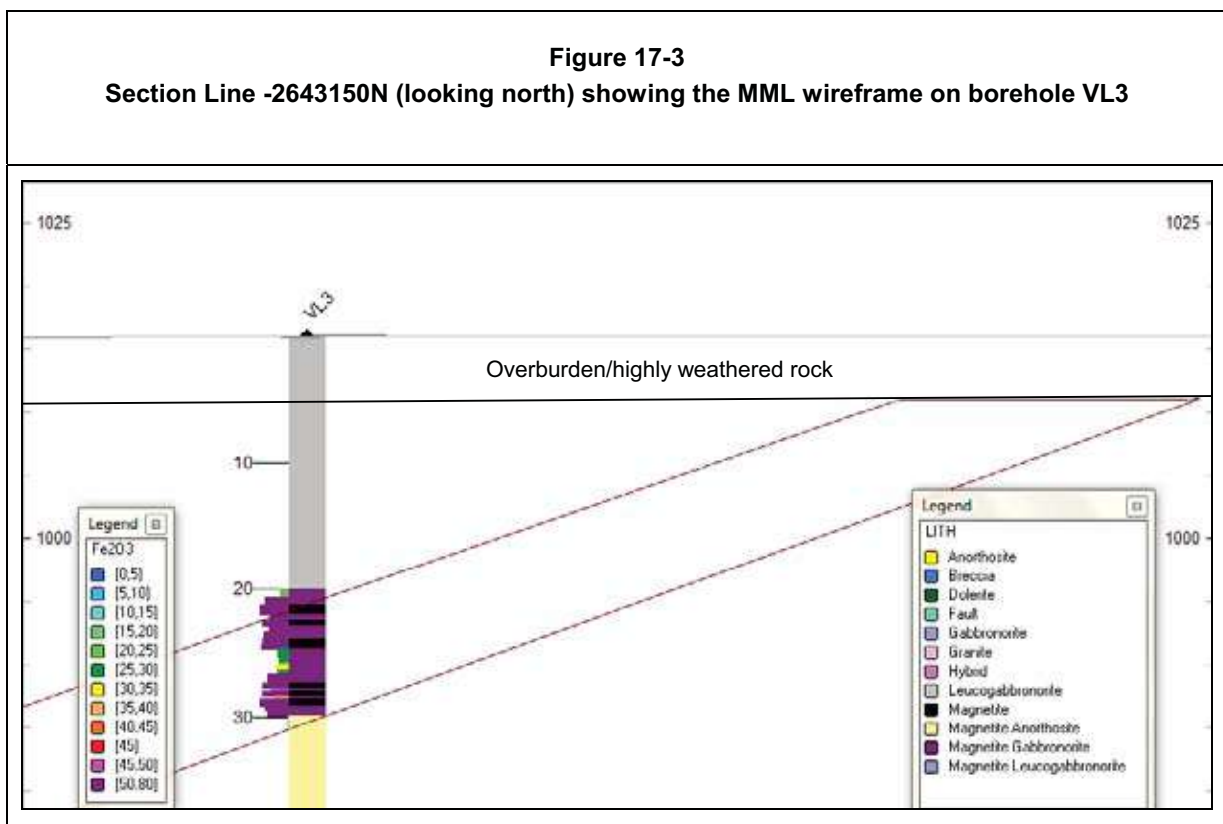
The outcrop position for the MML was interpolated from borehole fence lines comprising two drillholes. The interpreted MML surface expression, from the aeromagnetics interpretation was also used to constrain the outcrop position (refer to Figure 7-6).

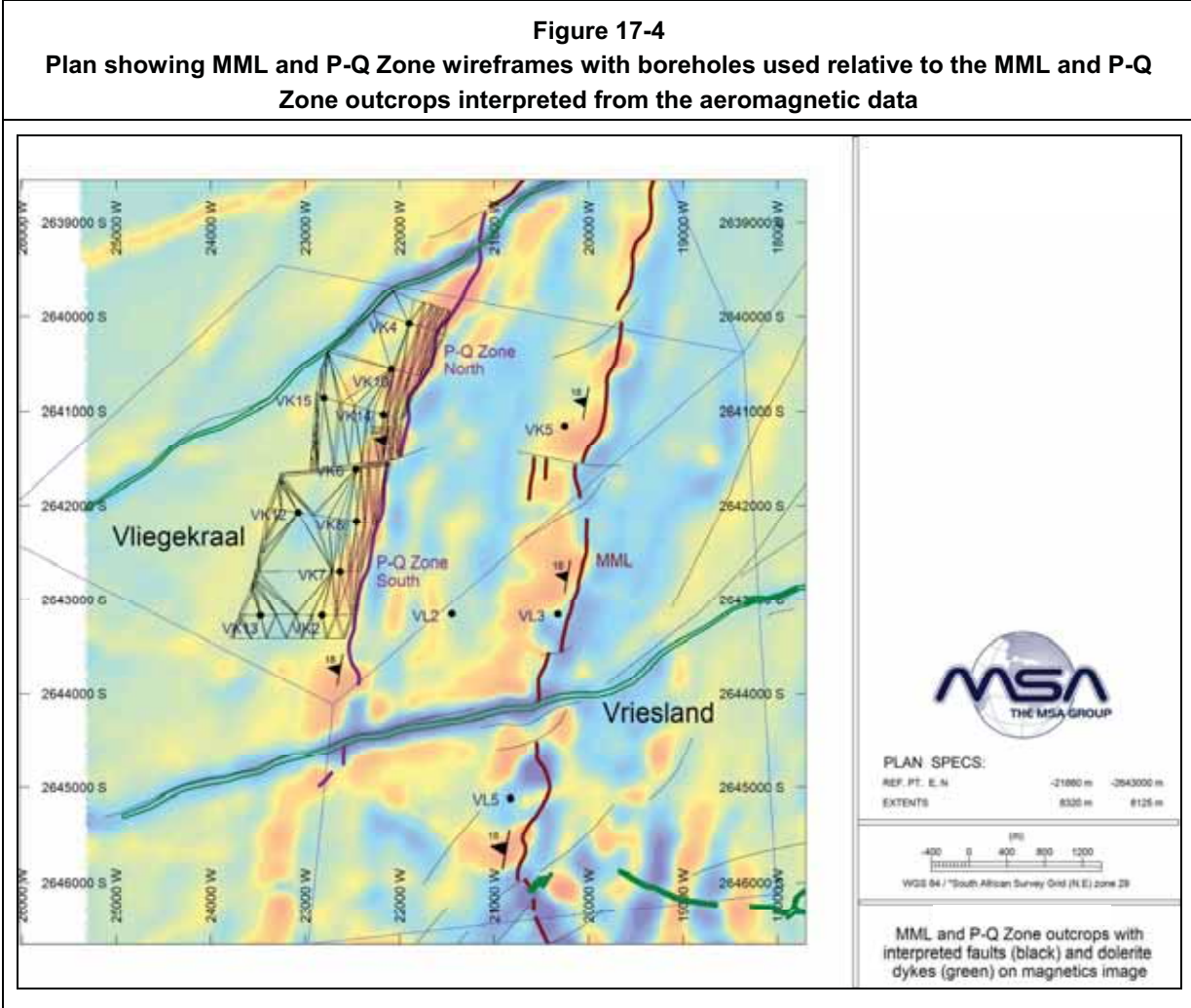
The MML wireframe interpretation was not compartmentalised according to interpreted faults because the wide borehole spacing could not adequately quantify or define the effects of such faulting.

The MML wireframe was extended 800 m to the north and 900 m to the south of drilling limits, this being half the inter-borehole spacing distance; the wireframe was also bound by interpreted faults to the north and south.

As noted above, the average overburden depth is 5 m and therefore the resultant wireframe was truncated at 5 m below surface.

The topographical surface was subsequently translated down to 100 m depth, in order to limit the extent of the defined mineral resources to this specific depth, considering the likelihood of economic extraction within the foreseeable future.





### 17.2.2 P-Q Zone

The P-Q Zone is a composite zone comprised of the P-Q Ti-magnetite layers as well as associated semi-massive to disseminated Ti-magnetite hanging- and footwall material (refer to Figure 7-16).

Geochemistry was utilised to define the base of the P-Q Zone because of the somewhat gradational contact of this Ti-magnetite bearing interval. For the upper contact, an abrupt increase in  $P_2O_5$  usually coupled with a decrease in  $Fe_2O_3$  content to below 35% was used (Figure 17-5).

The lower contact was defined by a  $>35\%$   $Fe_2O_3$  content which is usually followed at greater depth by an erratic decrease in  $Fe_2O_3$  to below 20%  $Fe_2O_3$ . Thin layers of  $Fe_2O_3$  below 35% are included if they are followed by significant grades ( $> 35\%$ ) with a higher weighted length.

A phosphorus-enriched lithological unit in the P-Q Zone was intersected in boreholes VK2 and VK7, with thicknesses of 6 m and 8 m, respectively. This unit is well-defined with an elevated  $P_2O_5$  content coincident with lower  $Fe_2O_3$ . This unit was included in the P-Q Zone wireframes (Figure 17-5 and Figure 7-16). Not all hanging-wall and foot-wall material of the P-Q was sampled and the P-Q Zone mineral resource might be underestimated.

The P-Q Zone was split and compartmentalised into Northern and Southern blocks, along a fault interpreted mainly from assumptions, which was assumed to be sub-vertical for the purposes of geological modelling. The vertical displacement along this fault is apparent in the aeromagnetic interpretation (Figure 17-4). This interpretation was also used to aid in delineating the surface expression of the P-Q Zone. The P-Q Zone North block is truncated in the north by the fault and dyke system noted earlier (Figure 17-1).

Figure 17-6 is a continuous east to west section based on the drilling programme, from the MML to the P-Q Zone showing their disposition within the Upper Zone in relation to other minor Ti-magnetite layers. Figures 17-7 to 17-8 are cross-sections of the P-Q Zone in the North and South blocks, each based on two borehole intersections, which determine thickness and dip of this Ti-magnetite assemblage. Figure 17-9 shows sectional and 3-D interpretations of the MML and P-Q Zone with the positions of the dyke/fault zones.

The modelled surfaces were used to extrapolate the mineral resource to vertical depths of 100m, 200 m, 300 m and 400 m in order to limit the wireframes and mineral resource envelopes to those specific depths below surface.

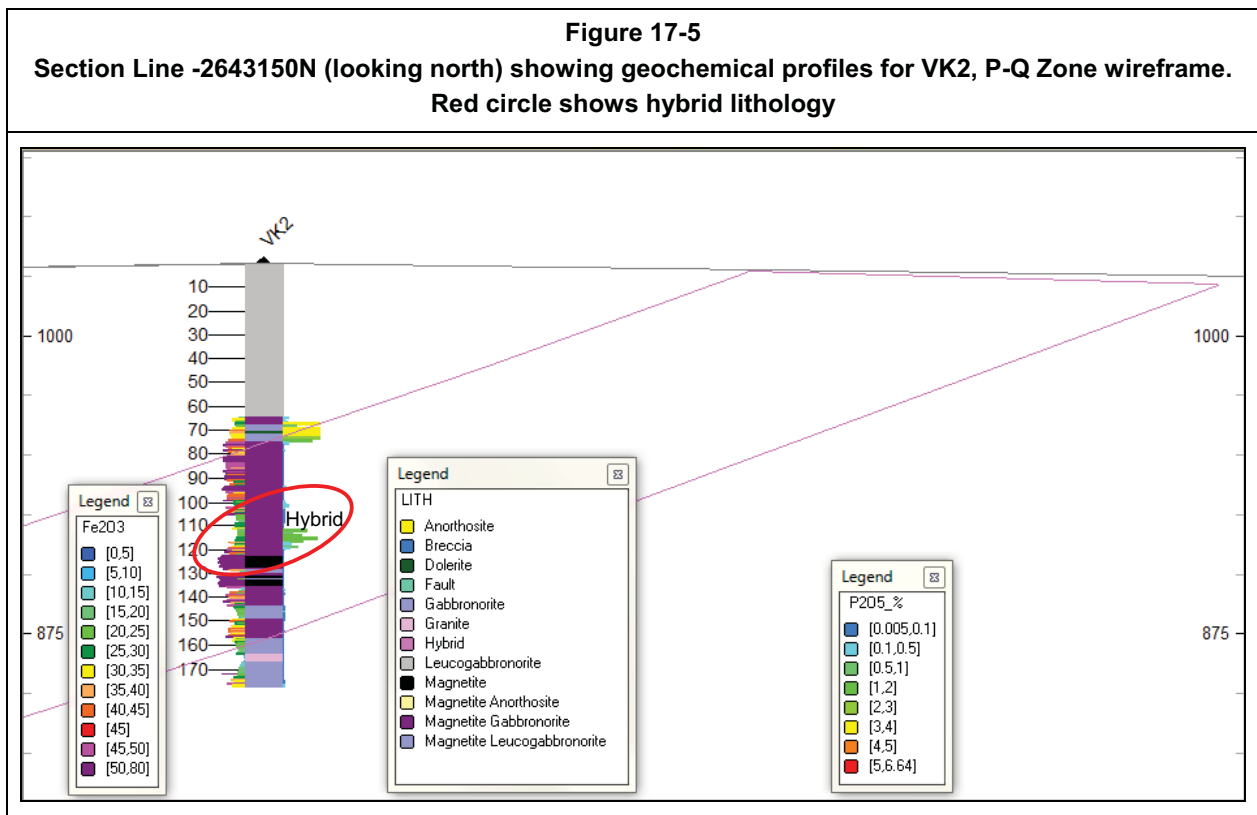
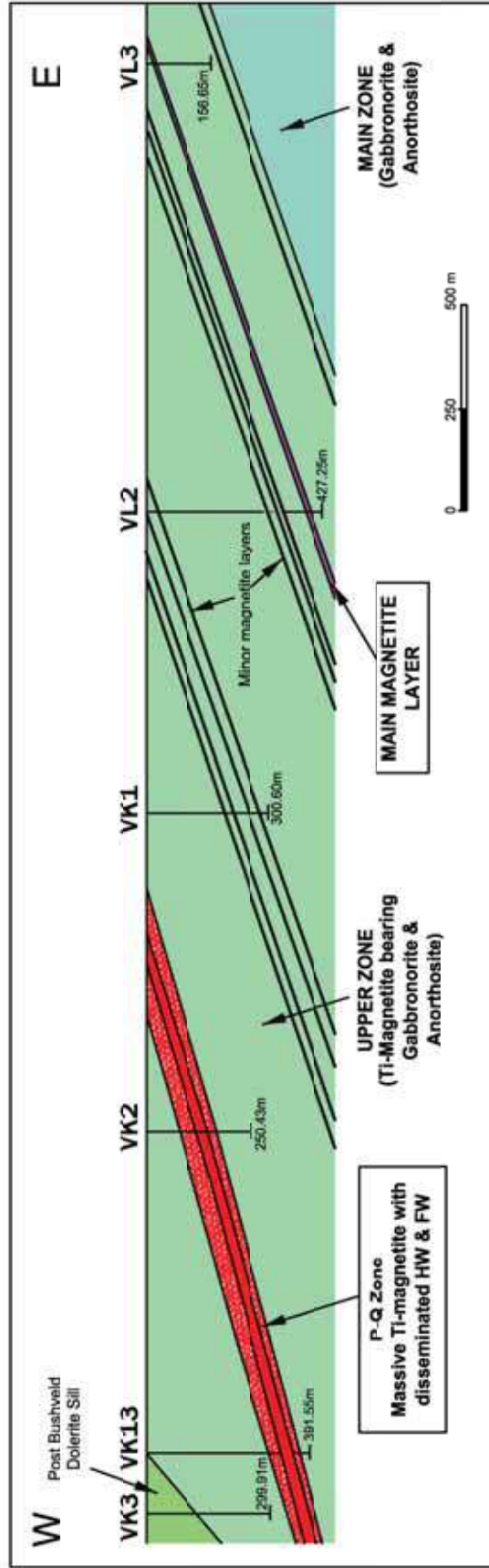




Figure 17-6  
Section Line -2643150N (looking north) showing P- Q Zone and MML intersections



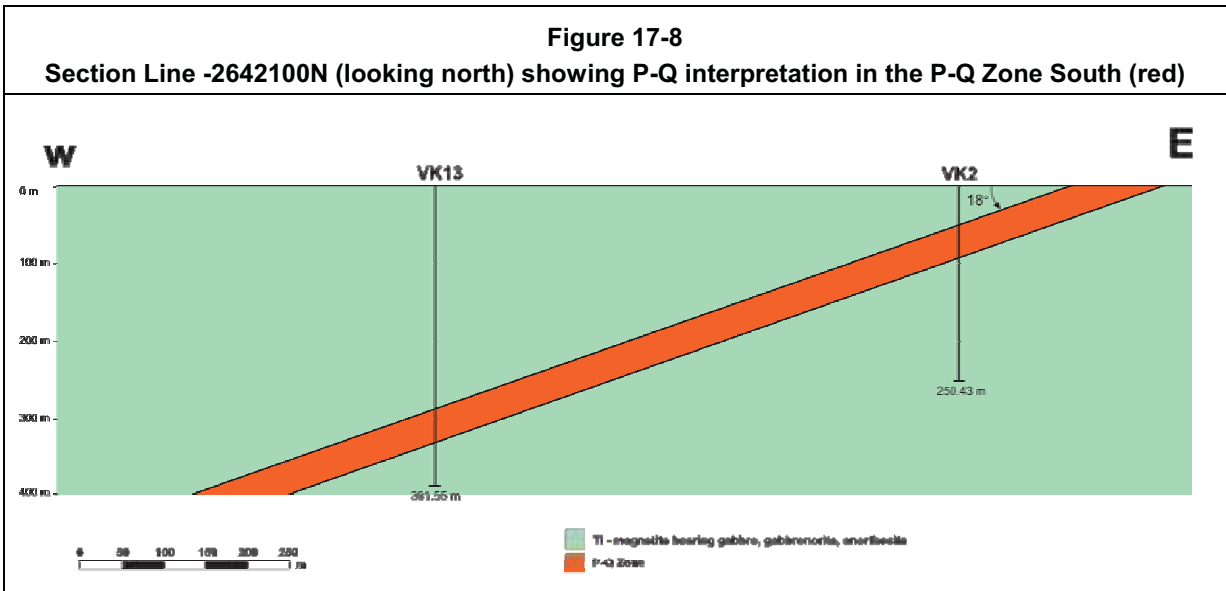
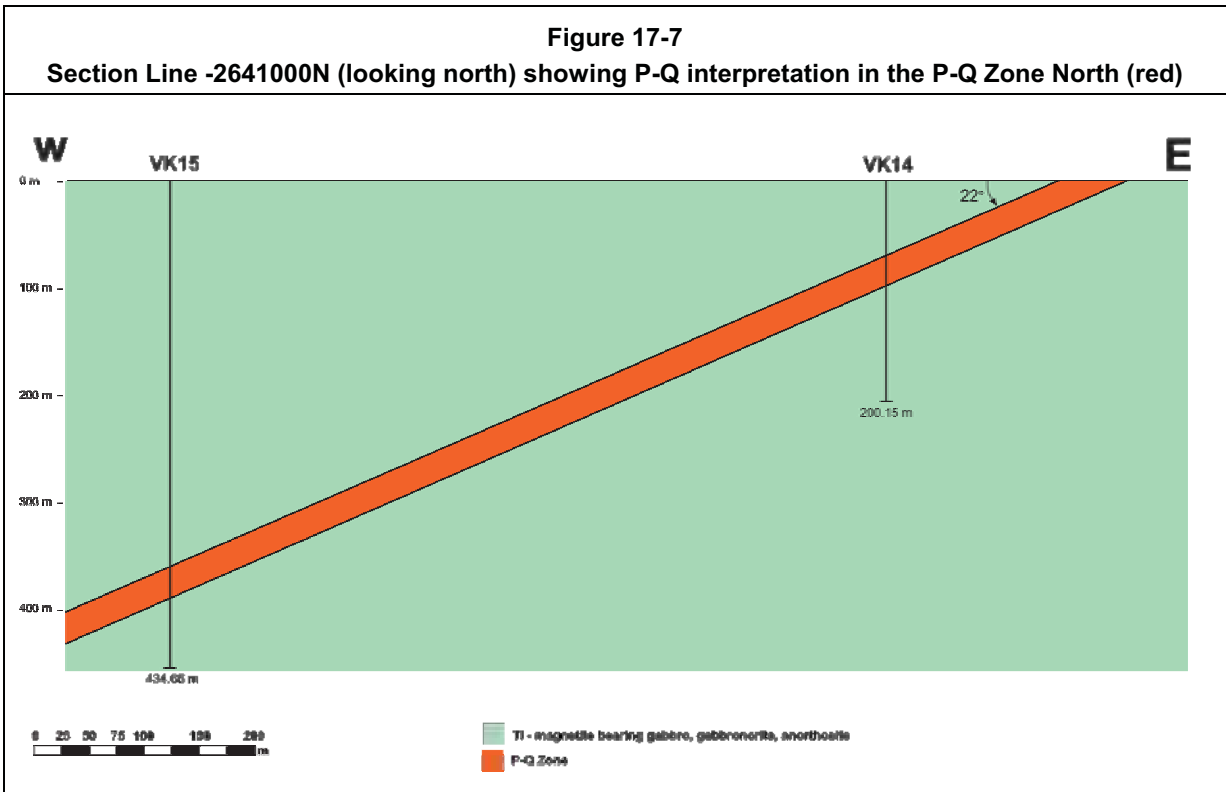
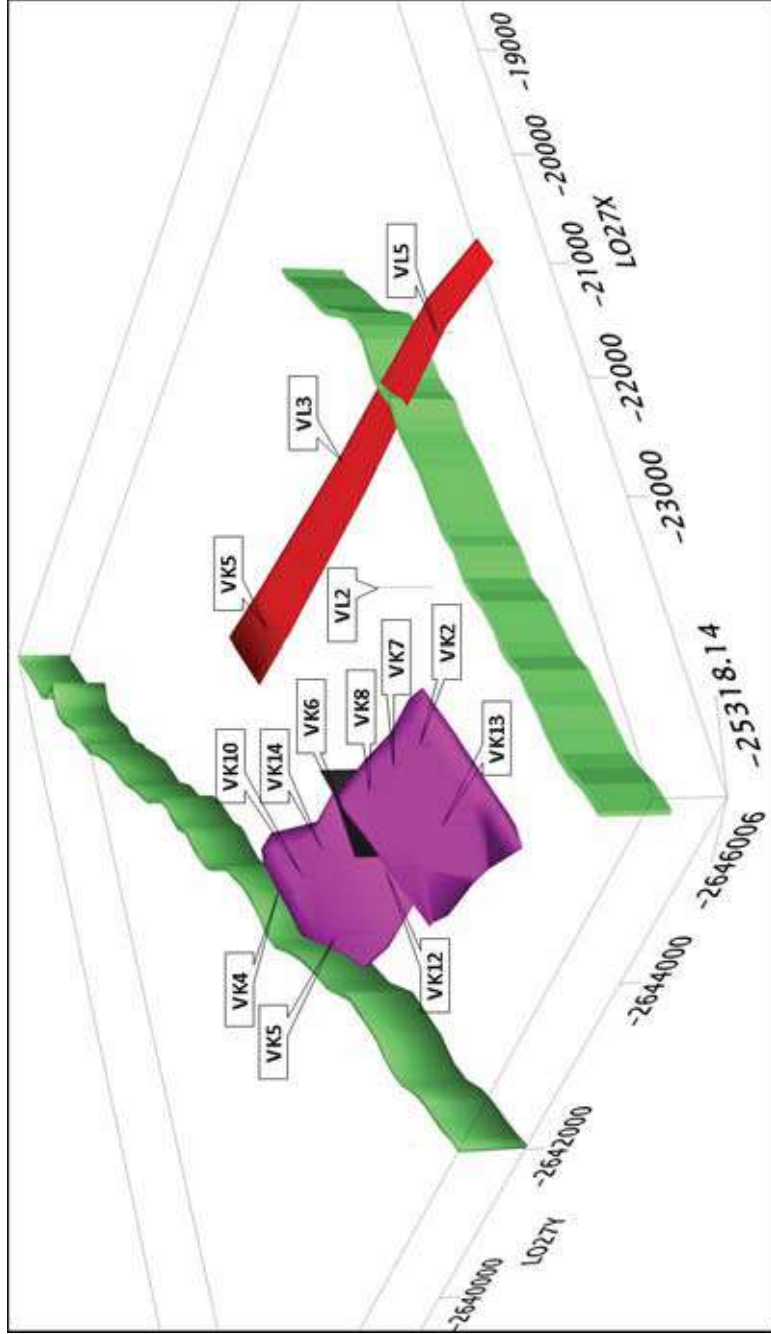


Figure 17-9  
 Isometric view, looking NE, showing MML (red), P-Q Zone (purple), fault (black) and dolerite dyke / fault system (green)

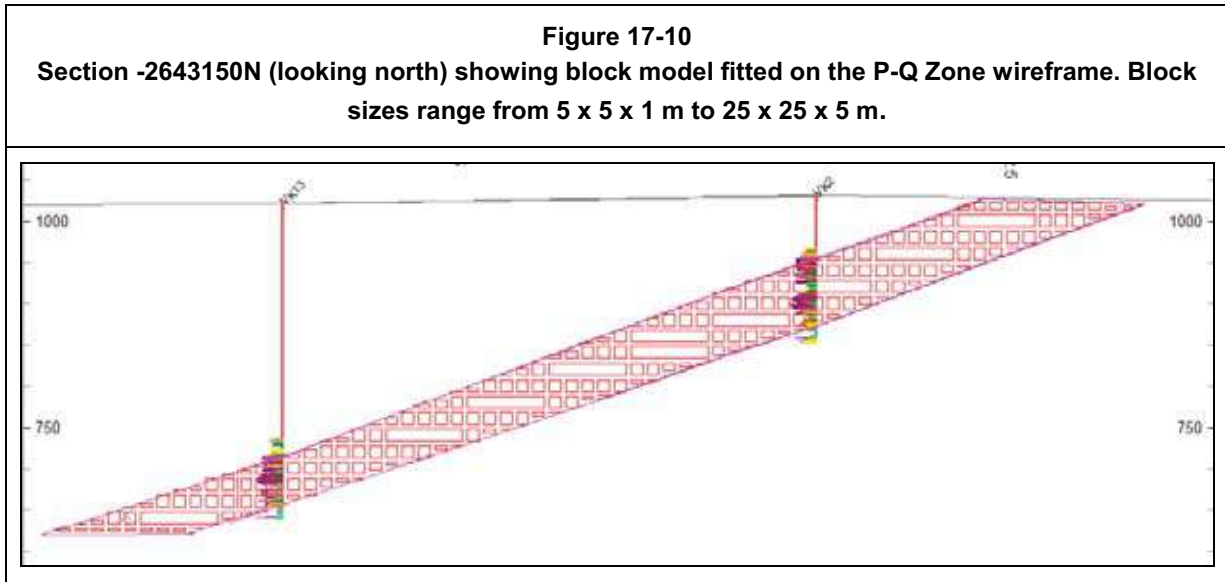


### 17.3 Block modelling

The common origin for all the un-rotated block models for the MML and P-Q Zone blocks is:

Easting (X): -23 950  
 Northing (Y): -2 646 100  
 Elevation (Z): 570 m amsl

The parent block model was 100 m (easting or X) x 100 m (northing or Y) x 20 m (for the Z height). The Ti-magnetite layer wireframes were used to generate the block models. Sub-celling of the parent blocks was subsequently applied in the XY plane in order to achieve optimal block model fitting into the wireframes and closer fitting for the Z height. This resulted in a minimum of 20 m (X) x 20 m (Y) x 1 m (Z) sub-blocks (Figure 17-11).



### 17.4 Input Data Exploratory Data Analysis

#### 17.4.1 Variographic analysis

Snowden Supervisor software was utilised for the geostatistical and univariate analysis.

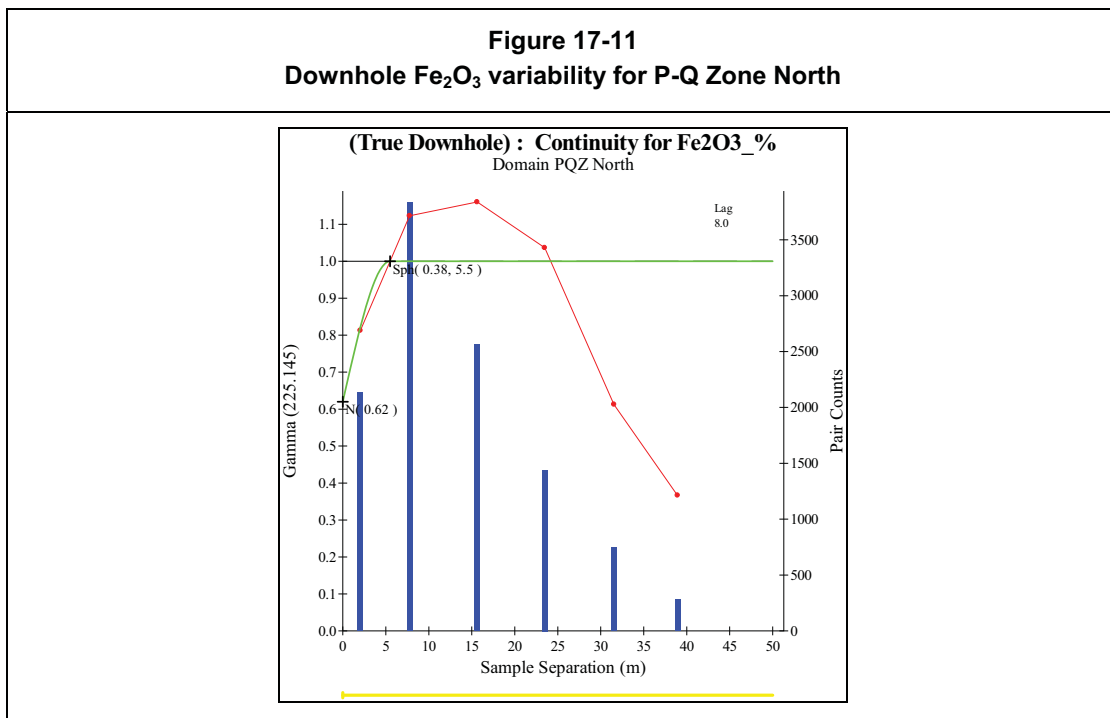
The MML was drilled at an average of 2 000 m x 1 000 m drillhole spacing. The P-Q Zone was drilled at 600 m x 600 m drillhole spacing. This difference in the borehole spacing influenced the grade estimation exercise and resulted in areas of varying confidence in grade estimation.

Compositing of the drilling data was not undertaken for any block. The dominant sample length is 0.5 m in all drillhole input files. Exploratory data analysis (EDA) per elemental constituent was undertaken on length-weighted samples.

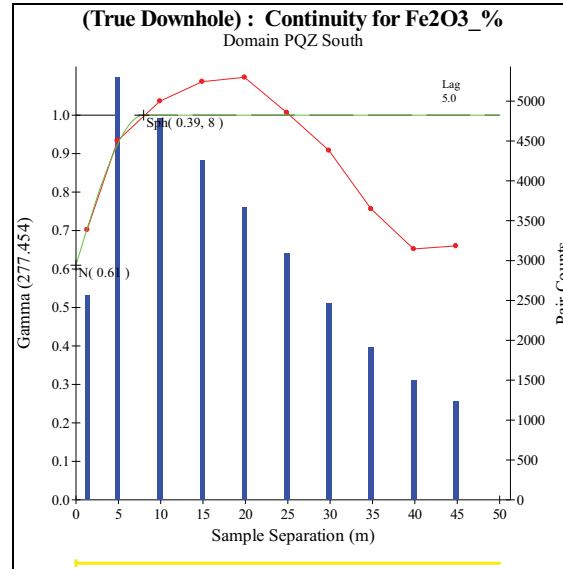
Trial variographic analysis was undertaken on the MML and P-Q Zone, utilising drillhole data within the respective wireframes. Each targeted element was analysed in order to assess the mean values of the mineralisation as well as to determine any spatial trends and variations in grade. The elements analysed included  $Al_2O_3$ ,  $CaO$ ,  $Fe_2O_3$ ,  $MgO$ ,  $P_2O_5$ ,  $S$ ,  $SiO_2$ ,  $TiO_2$ ,  $V_2O_5$ ,  $Cu$  and  $Ni$ .  $SG$  was also analysed. The  $Fe_2O_3$  variographic parameters were applied to all the elements, including the  $SGs$ .

Owing to the large borehole separation, lateral variography did not yield meaningful results, especially in the MML. However, variography in the Z direction (downhole) did define down-hole continuity for both the MML and the P-Q Zone. This study defined downhole search distances of 5.5 m for the P-Q Zone North block and 8 m for the P-Q Zone South block (Figures 17-12 and 17-13). The MML is rather massive and not too variable and therefore a downhole search distance of 10 m, which is close to the apparent average thickness of the MML, was used.

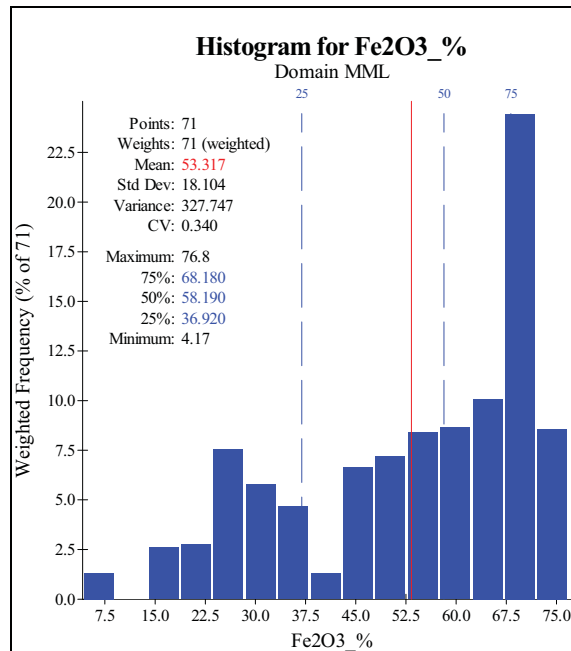
The raw samples acted as the input data for the initial data analysis study. Statistics of the input data for  $Fe_2O_3$  are tabulated below in Figures 17-14 to 17-16. Histograms for other elements are provided in Appendix 2.



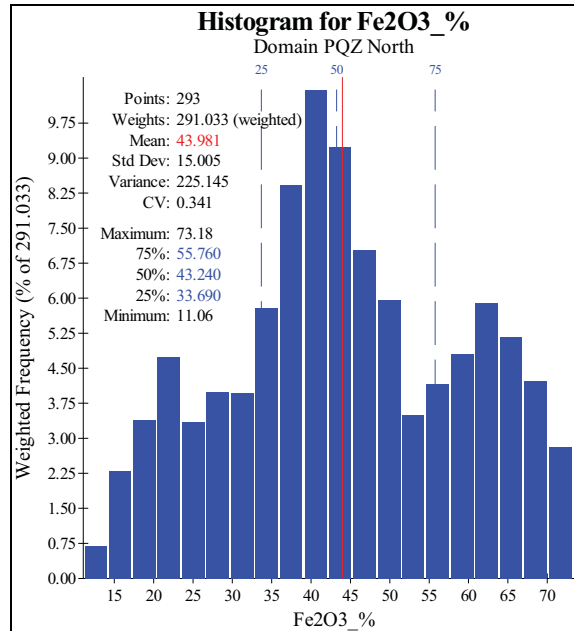
**Figure 17-12**  
**Downhole Fe<sub>2</sub>O<sub>3</sub> variability for P-Q Zone South**



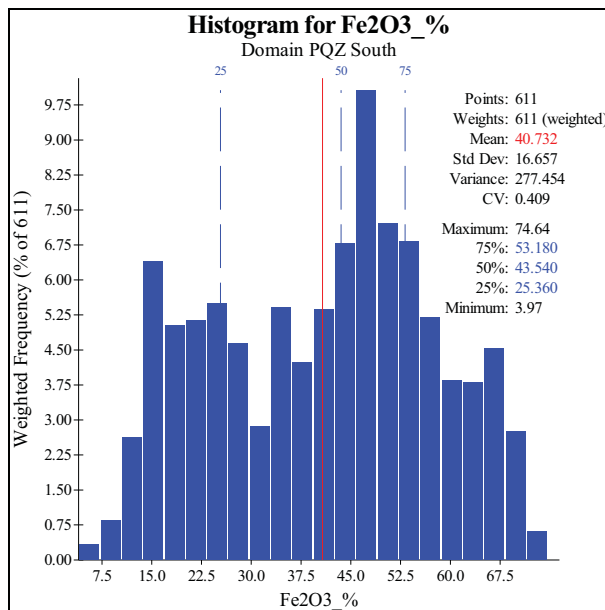
**Figure 17-13**  
**MML Fe<sub>2</sub>O<sub>3</sub> histogram**



**Figure 17-14**  
**P- Q Zone North Fe<sub>2</sub>O<sub>3</sub> histogram**



**Figure 17-15**  
**P- Q Zone South Fe<sub>2</sub>O<sub>3</sub> histogram**



## 17.5 Estimation parameters and grade estimation

In the absence of adequately defined variography, inverse distance weighting, to the power of 2 (IDW-2), was used for the grade estimation for all elements.

A minimum of five and a maximum of twenty samples were utilised for an estimate. A maximum of five samples was used from individual boreholes.

A multiplier of up to 30 was used for the search radii in order to populate all blocks with SG data, which would, in the absence of other data limitations, restrict the classification to the Inferred status, at least for the peripheral blocks. For bulk commodities, MSA has applied a maximum search diameter of 300 m to delineate Measured Mineral Resources, 600 m for Indicated Mineral Resources and 1 200 m for Inferred Mineral Resources.

A search ellipsoid was generated based on these mineral resource classification guidelines. This translates to a search radius of 212 m (the hypotenuse of a 150 m radius circle) for Measured, 424 m (the hypotenuse of a 300 m radius circle) for Indicated and 848 m (the hypotenuse of a 600 m radius circle) for Inferred. The X and Y distance of the search volumes was therefore set at 212 m x 212 m. The Z component of the search ellipsoid was derived from the variographic analysis above: 10 m for the MML, 6 m for the P-Q Zone North block and 8 m for the P-Q Zone South block. The search ellipses were rotated in order to match the dip and dip direction of the wireframes. This was done clockwise by 8° around the Z axis (strike) and 18° around the Y axis (dip) for the MML. Equivalent rotations for the P-Q Zones were 18° around the Z axis (strike) and 22° around the Y axis for the North block (dip) and 18° for the South block (dip).

For the MML, the inferred search radius was increased for the SG data in order to populate all blocks, as the drillhole spacing is 2 000 m along strike and density data are limited. Density data was estimated as a grade variable, using density data from the drillholes. All density measurements were available for the MML drillholes while not all of the P-Q Zone drillholes had SG data.

## 17.6 Mineral Resource classification

Classification of mineral resources was applied from the search radii of 212 m (Measured), 424m (Indicated) and 848 m (Inferred). Figure 17-17 below shows that the MML is classified as an Inferred Mineral Resource, while some of the P-Q Zone can be classified as an Indicated Mineral Resource and the remainder as an Inferred Mineral Resource, as a function of the drillhole spacing.

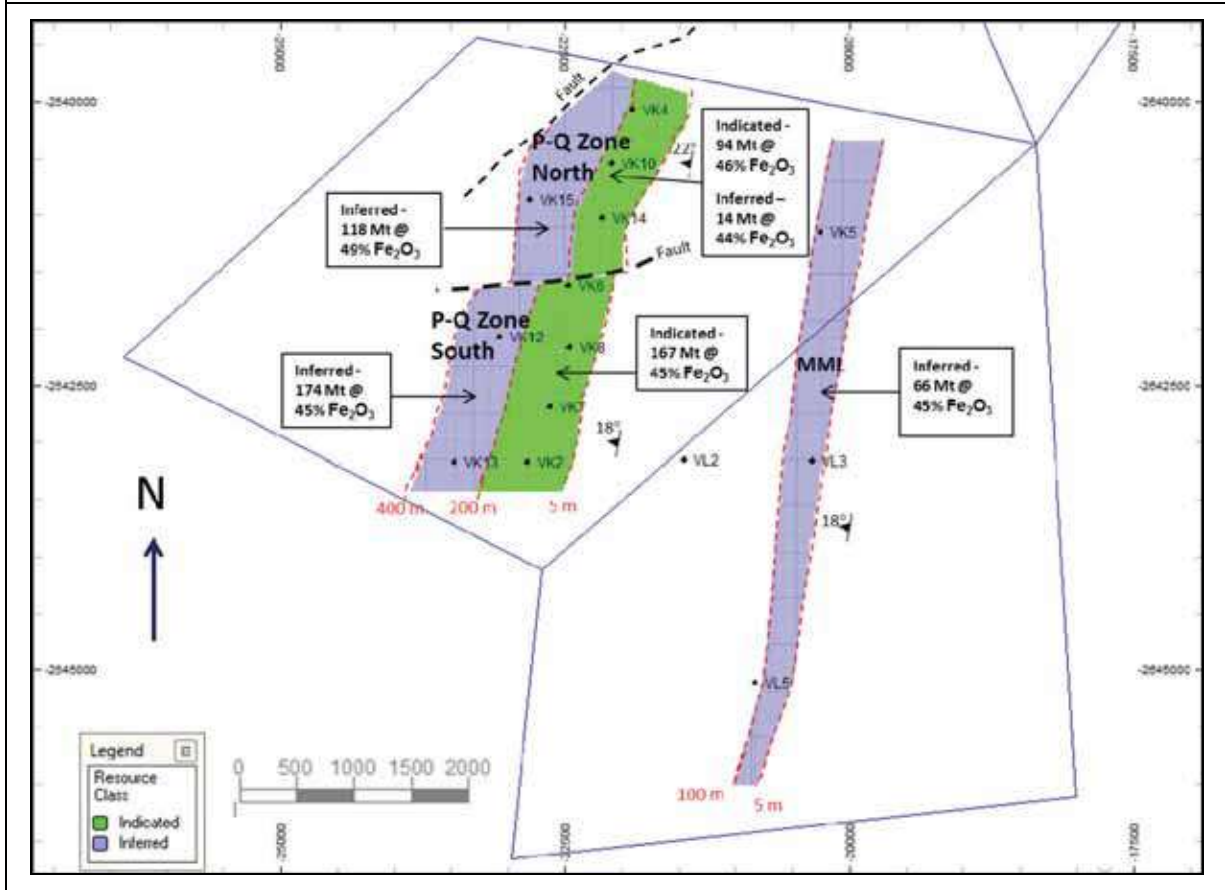
### 17.6.1 Geological Losses

No geological losses were applied for either the MML or P-Q Zone mineral resources, which are therefore quoted as *in-situ*. Geological features such as dykes, faults and other disruptive phenomena are poorly-defined at present due to the wide spacing of the drillholes and the fact that none of the drillholes intersected dykes. Specifically, a dyke was interpreted in Figure 17-10 for the MML, but was not accounted for in the current exercise.



It is believed that the effect of this dyke and other geological discontinuities will be better addressed following additional drilling of the MML and the P-Q Zone.

**Figure 17-16**  
**Plan showing borehole collar position relative to mineral resource classification of the MML and the P-Q Zone**



### 17.6.2 Waste models

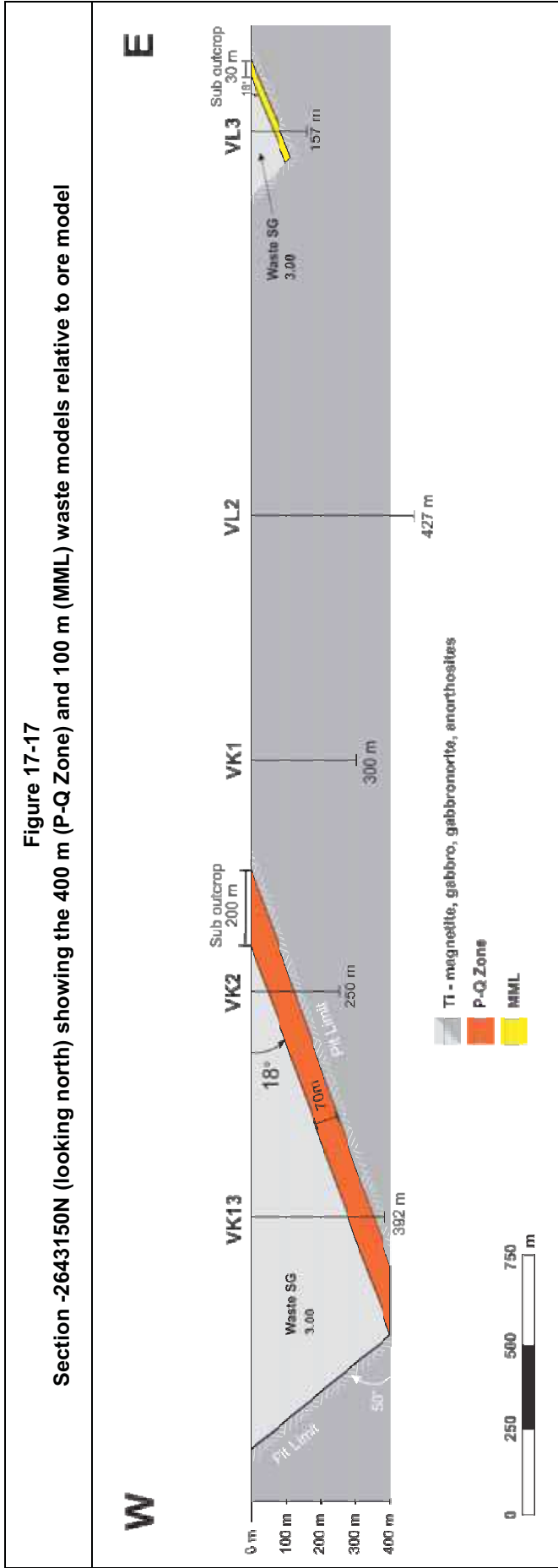
In terms of the SAMREC and JORC codes, formal mineral resource estimates may include not only mineralisation that has the potential to be economically viable using currently practised mining and extraction technology, but also mineralisation that in the opinion of the independent competent persons has reasonable potential to become economically viable with advances in mining and extraction technology within the foreseeable future. Mineralisation within both the MML and P-Q Zones at the Mokopane Project appears to be fairly continuous to considerable depths – depths well below those currently considered to be of economic viability. In this Mineral Resource Estimation exercise, cognisance has been taken of the substantial mineralisation that is likely to be present at depth; and depth cut-offs have been imposed based on simplistic bulk

stripping ratios that, while considerably beyond the limits of current commercial mining practice, might conceivably become viable in the future. The estimates do not, however, take any account of the additional costs that might prove to be associated with the extraction of saleable metals from the mineralogically complex Ti-magnetite material (relative to more conventional iron deposits), simply because insufficient quantitative metallurgical test work has been undertaken to date.

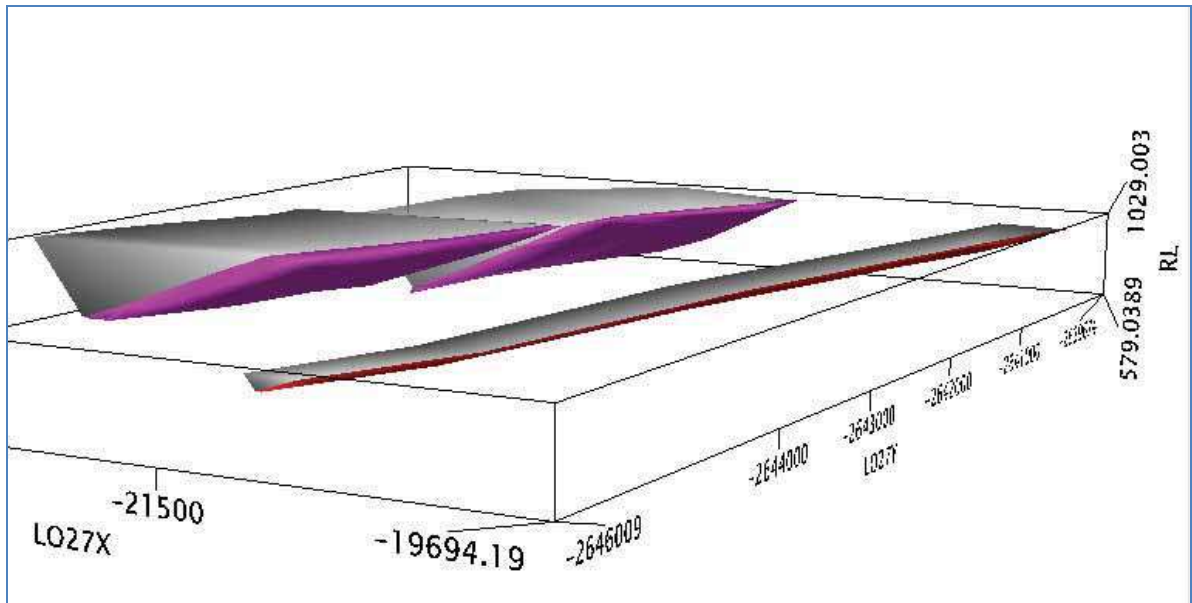
Illustrative waste models were constructed to derive potential extractive scenarios in terms of stripping ratios. This aided in defining nominally-realistic mineral resource exploitation depths (Figures 17-18 and 17-19).

A high-wall angle of 50° was used in all cases to build the waste model (although this might prove to be too steep for pit depths below 200 m). A conservative density of 3 g/cm<sup>3</sup> was used for the waste model, based on the statistical mean of all other samples outside the wireframes. This also included the overburden from surface down to 5 m vertical depth. The “<35% Fe<sub>2</sub>O<sub>3</sub> tonnage” in the P-Q Zone model was added to this waste tonnage and the remaining P-Q Zone tonnage was divided into this total to derive a stripping ratio (Table 17-2). For the MML, the “<40% Fe<sub>2</sub>O<sub>3</sub> tonnage” in the MML model was added to the waste model and then divided by the remaining MML tonnage (Tables 17-3 to 17-4).

The stripping ratio derived from the application of adding a waste model above the Ti-magnetite units was compared with other currently producing South African iron ore mines. An illustrative average stripping ratio of 5:1 was therefore used as the limit for any economic extraction. This limit is considered to be extremely generous: given that a very low stripping ratio (<3:1) would characterise the shallow portion of a pit, the ratio for deeper parts of the pit would inevitably be substantially greater than 5:1 for that to be the average; and the decision on whether to deepen the pit would depend on the prevailing incremental stripping ratio rather than the overall average.



**Figure 17-18**  
**Isometric view (looking northwest) of waste models (grey) on MML (red) and P-Q Zone (pink)**



Note: 3-D visualisation is not to scale

**Table 17-2**  
**Illustrative MML stripping ratios**

Block	40% Cut-off Fe <sub>2</sub> O <sub>3</sub>	Waste (incl <40% Fe <sub>2</sub> O <sub>3</sub> internal waste)	Total	Average Stripping Ratio
	Million Tonnes	Million Tonnes	Million Tonnes	
MML 0 – 100 m	66.21	288.74	354.96	5.36 : 1

**Table 17-3**  
**Illustrative P-Q Zone North stripping ratios**

Block	35% Cut-off Fe <sub>2</sub> O <sub>3</sub>	Waste (incl 35% Fe <sub>2</sub> O <sub>3</sub> internal waste)	Total	Average Stripping Ratio
	Million Tonnes	Million Tonnes	Million Tonnes	
P-Q Zone North 0 – 200 m	108.17	276.09	384.25	3.55 : 1
P-Q Zone North 0 – 400 m	215.71	1,298.79	1,514.50	7.02 : 1

**Table 17-4**  
**Illustrative P-Q Zone South stripping ratios**

Block	35% Cut-off Fe <sub>2</sub> O <sub>3</sub>	Waste (incl 35% Fe <sub>2</sub> O <sub>3</sub> internal waste)	Total	Average Stripping Ratio
	Million Tonnes	Million Tonnes	Million Tonnes	
P-Q Zone South 0 – 200 m	166.89	257.69	424.58	2.54 : 1
P-Q Zone South 0 – 400 m	337.14	1,572.81	1,909.96	5.67 : 1

Based on applying the assumed maximum average stripping ratio of 5:1, extraction of the P-Q Zone North down to 400 m vertical depth, is probably unattainable under current economic conditions, especially if the incremental, rather than average stripping ratio at that depth is considered.

## 17.7 Mineral Resource statement

Sulphur content is a major consideration in determining the suitability of material for pyrometallurgical processing (smelting). Sulphur (S) was only analysed in two out of four boreholes for the MML (on the same dip section), one out of four boreholes in the P-Q Zone North and one out of six boreholes in the P-Q Zone South. Therefore the available data are not adequate to declare a value for S in the current mineral resource estimations. Elevated sulphur concentrations, caused by the presence of disseminated sulphides and semi-massive sulphide stringers (<3 cm) and narrow bands (<25 cm), were predominantly encountered in the foot wall sequence of the P-Q Layers rather than within the semi-massive to massive Ti-magnetite layers.

For the purposes of mineral resource estimation, a cut off of 40% Fe<sub>2</sub>O<sub>3</sub> was applied to the MML and a cut-off of 35% Fe<sub>2</sub>O<sub>3</sub> was applied to the P-Q Zone.

### 17.7.1 MML

The following in-situ SAMREC-compliant mineral resources are declared for the MML, down to 100 m vertical depth (Table 17-5). Table 17-6 shows the resources at the applied 40% Fe<sub>2</sub>O<sub>3</sub> cut-off. The estimated global sulphur content at 0.06% is not reported due to insufficient data.

**Table 17-5**  
**MML In-situ Inferred Mineral Resources, <100 m at various Fe<sub>2</sub>O<sub>3</sub> cut-offs**

Cut Off	Million	SG	Fe	Fe <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Fe <sub>2</sub> O <sub>3</sub> %	Tonnes		%	%	%	%	%	%	%
40	66.21	3.83	37.1	53.1	0.01	9.2	1.24	17.9	11.1
45	66.15	3.83	37.1	53.1	0.01	9.2	1.24	17.9	11.1
50	51.05	3.84	37.9	54.2	0.01	9.4	1.27	17.0	10.9
55	17.00	3.88	39.5	56.4	0.01	9.7	1.32	15.3	10.3
60	1.00	4.06	43.9	62.8	0.01	10.9	1.48	10.7	8.1

**Table 17-6**  
**MML In-situ Inferred Mineral Resources, <100 m at 40% Fe<sub>2</sub>O<sub>3</sub> cut-off**

Cut Off	Million	SG	Fe	Fe <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Fe <sub>2</sub> O <sub>3</sub> %	Tonnes		%	%	%	%	%	%	%
40	66.21	3.83	37.1	53.1	0.01	9.2	1.24	17.9	11.1

### 17.7.2 P-Q Zone North

The following in-situ SAMREC-compliant mineral resources are declared for the P-Q Zone, North, down to a vertical depth of 200 m (Tables 17-7 and 17-8), as well as from vertical depths of 200 m to 400 m (Table 17-9). Whereas both Indicated and Inferred Mineral Resources have been stated for the zone shallower than 200 m, the resources below 200 m have been categorised only as Inferred, due to the lesser likelihood that they could be economically exploited in the foreseeable future. The estimated sulphur concentrations in the P-Q Zone North, from limited data, is 0.65% but is not reported due to insufficient data.

**Table 17-7**  
**P-Q Zone North In-situ Indicated Mineral Resources, <200 m at various Fe<sub>2</sub>O<sub>3</sub> cut-offs**

Cut Off	Million	SG	Fe	Fe <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Fe <sub>2</sub> O <sub>3</sub> %	Tonnes		%	%	%	%	%	%	%
35	93.73	3.69	32.3	46.2	0.04	11.2	0.19	22.86	10.1
40	72.24	3.77	34.0	48.6	0.04	11.9	0.20	21.10	9.3
45	45.45	3.89	36.7	52.4	0.03	13.2	0.24	18.04	8.3
50	30.71	3.97	38.3	54.8	0.02	14.0	0.26	16.13	7.7
55	14.44	4.04	40.2	57.5	0.01	14.9	0.27	13.99	7.2
60	1.21	4.17	43.2	61.8	0.01	16.1	0.33	10.72	6.0
65	0.04	4.38	47.0	67.2	0.01	16.7	0.45	6.72	4.5

**Table 17-8**  
**P-Q Zone North In-situ Inferred Mineral Resources, <200 m at various Fe<sub>2</sub>O<sub>3</sub> cut-offs**

Cut Off	Million	SG	Fe	Fe <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Fe <sub>2</sub> O <sub>3</sub> %	Tonnes		%	%	%	%	%	%	%
35	14.43	3.57	30.5	43.6	0.03	10.3	0.23	24.4	10.4
40	8.29	3.78	33.6	48.1	0.03	11.6	0.26	21.2	8.7
45	5.51	3.88	35.7	51.0	0.02	12.6	0.29	19.0	7.7
50	3.61	3.94	37.1	53.1	0.02	13.2	0.29	17.5	7.2

<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	118.10	3.84	34.0	48.6	0.04	12.3	0.20	20.7	9.6
40	101.25	3.89	35.1	50.2	0.04	12.7	0.22	19.6	9.2
45	85.07	3.95	36.3	51.9	0.03	13.2	0.24	18.2	8.9
50	76.21	3.96	36.7	52.4	0.03	13.4	0.25	17.7	8.7
55	9.92	4.08	39.6	56.7	0.03	14.4	0.25	14.8	7.5

### 17.7.3 P-Q Zone South

The following SAMREC-compliant In-situ Mineral Resources are declared for the P-Q Zone North, down to a vertical depth of 200 m (Tables 17-10 and 17-11), as well as from vertical depths of 200 m to 400m (Table 17-12). Whereas both Indicated and Inferred Mineral Resources have been stated for the Zone shallower than 200 m, the resources below 200 m have been categorised only as Inferred, due to the lesser likelihood that they could be economically exploited in the foreseeable future. The estimated sulphur content in the P-Q Zone South is 0.66% but is not reported due to the limited data.

<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	166.47	3.71	32.4	46.4	0.06	11.4	0.18	25.3	10.3
40	142.08	3.76	33.5	47.9	0.05	11.9	0.18	24.6	10.0
45	104.75	3.82	34.8	49.7	0.05	12.5	0.18	23.5	9.4
50	39.06	3.94	37.8	54.0	0.03	14.1	0.24	19.1	8.6
55	14.01	4.04	39.9	57.1	0.03	14.9	0.29	15.0	7.0
60	0.45	4.13	44.0	61.5	0.03	16.6	0.30	13.6	7.2

The combined Mineral Resources for the northern and southern blocks for the P-Q Zone, at a 35% Fe<sub>2</sub>O<sub>3</sub> cut off, are tabulated in Tables 17-13 and 17-14.

<b>Table 17-11</b>									
<b>P-Q Zone South In-situ Inferred Mineral Resources, &lt;200 m at various Fe<sub>2</sub>O<sub>3</sub> cut-offs</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	0.42	3.80	33.9	48.5	0.09	11.2	0.12	23.7	8.5
40	0.40	3.81	34.2	49.0	0.09	11.3	0.12	23.5	8.3
45	0.38	3.82	34.5	49.3	0.09	11.4	0.12	23.3	8.2
50	0.11	3.92	36.4	52.0	0.07	12.4	0.16	20.7	7.7

<b>Table 17-12</b>									
<b>P-Q Zone South In-situ Inferred Mineral Resources, 200 m to 400 m at various Fe<sub>2</sub>O<sub>3</sub> cut-offs</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	174.28	3.70	30.6	43.8	0.05	11.0	0.18	25.1	10.6
40	120.88	3.77	32.7	46.7	0.05	11.9	0.17	23.5	10.0
45	76.31	3.85	34.4	49.2	0.05	12.7	0.18	21.8	9.2
50	25.99	3.95	36.6	52.3	0.02	13.8	0.23	19.3	8.7
55	3.99	4.07	40.1	57.3	0.02	15.0	0.30	14.7	6.8
60	0.14	4.18	44.0	62.9	0.02	17.0	0.32	15.8	7.9
65	0.03	4.35	47.7	68.2	0.01	18.5	0.40	6.1	4.5

<b>Table 17-13</b>									
<b>Combined P-Q Zone (North and South) In-situ Indicated Mineral Resources, &lt;200 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	260.20	3.70	32.4	46.3	0.05	11.3	0.18	24.4	10.2

<b>Table 17-14</b>									
<b>Combined P-Q Zone In-situ Inferred Mineral Resources, &lt; 400 m at 35% Fe<sub>2</sub>O<sub>3</sub> cut-off</b>									
<b>Cut Off</b>	<b>Million</b>	<b>SG</b>	<b>Fe</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>TiO<sub>2</sub></b>	<b>V<sub>2</sub>O<sub>5</sub></b>	<b>SiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>
<b>Fe<sub>2</sub>O<sub>3</sub>%</b>	<b>Tonnes</b>		<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
35	307.23	3.75	31.9	45.7	0.05	11.5	0.19	23.4	10.2



## 17.8 Recommendations

In-fill drilling should be undertaken on the MML Layer at 250 m spacing in order to upgrade the Mineral Resource ultimately to Measured status. The drilling should be limited in depth due to the apparent prohibitive stripping ratio at depths below 100 m. This drilling will also enhance geological confidence in terms of structure.

Foot- and hanging wall disseminations around the P-Q Ti-magnetite Layers should be sampled in all boreholes as these might host additional Ti-magnetite resources. These can potentially increase the tonnage within the P-Q Zone in areas where they were not sampled.

Rock density measurements need to be undertaken on all sampled core in order to obtain more representative measurements, which could affect tonnage estimates and therefore stripping ratios.

All samples should be analysed for Sulphur as some disseminated sulphides occur in the mineralised zones and are a deleterious component. There are currently insufficient sulphur analytical data upon which to base a reliable average S content.

Sample width should be standardised to 1-metre particularly in the P-Q Zone.

## **18 OTHER RELEVANT INFORMATION**

The regional NE-SW-trending dyke and fault zone crossing the farms Malokong and Vogelstruisfontein are responsible for significant structural disturbances, which according to Frontier, were found to compromise the continuity of the mineralisation. A decision was taken by BRL, given the time constraints of the 2011 drill campaign, that the mineralisation to the north of the fault zone on the farms Malokong and Vogelstruisfontein would not be investigated further during the 2011 exploration phase. According to information provided by BRL two boreholes were drilled and completed on Vogelstruisfontein and one borehole on Malokong. MSA has not been provided with the location nor geological and structural information with respect to the latter boreholes as they are still of a reconnaissance nature.

No further additional information or explanation is deemed necessary for this technical report.

## 19 INTERPRETATION AND CONCLUSIONS

A total of 14 cored boreholes were drilled on the MML and P-Q Zone Ti-magnetite mineralisation on the farms Vriesland 781LR and Vliegekraal 783LR. The boreholes show a relatively good lateral and down-dip continuity of the two mineralised units and were utilised for VTM resource estimations. Average true widths of 45 m and 8.4 m have been calculated for the combined P-Q Zone (North and South) and the MML, respectively.

The MML and P-Q Zone are hosted in various lithologies of the Upper Zone of the Rustenburg Layered Suite in the Northern Lobe of the Bushveld Complex. The Upper Zone consists of VTM-bearing gabbro, olivine-diorite, anorthosite and minor norite and contains intervals with strongly disseminated, semi-massive and massive VTM. These VTM-rich intercalations vary in thickness and VTM content and occur at irregular intervals.

The interpretation from the aeromagnetic survey correlates well with the modelled sub-crop position of the magnetite layers (Figure 17-5). These show continuity along strike, with some offsets due to faulting. A fault has compartmentalised the P-Q Zone into a Northern and Southern Block. The Northern Block has a slightly steeper dip than the Southern Block which therefore has adverse implications for the potential mineable mineral resource and depth of extraction. The northernmost part of the P-Q Zone North is truncated by a north-east trending, sub-vertical dolerite dyke near the northern border of Vliegekraal which further reduces the size of the mineral resource slightly at depth on this farm. The shallower portion of the P-Q Zone extends across the Vliegekraal boundary into Malokong (Figure 7-8).

Down-dip continuity has been demonstrated for the Ti-magnetite layers which maintain a roughly constant thickness. Variography also documents vertical continuity (Figure 17-9) and sampling intervals can be increased in future borehole sampling programmes to 1-metre or more, instead of the current 0.5-metre.

There is no obvious discrepancy in the SGs and  $Fe_2O_3$  content of the weathered portion of the MML compared to the deeper intersections of the MML. The same might apply to the P-Q Zone. At this stage there is no need to split the mineral resource into oxide and fresh zones but this might become necessary when the mineralisation is drill-tested immediately below the soil cover and metallurgical test work is undertaken.

Core recoveries in the mineralised intersections were generally above 95%. No core recoveries were recorded for VL3, which had a shallow MML intersection ( $\pm 20$  m to  $\pm 30$  m) partly within the weathered zone where core recoveries can drop significantly.

There is some potential for the mineral resource to be increased, as not all of the disseminated hanging- and foot-wall mineralisation of the P-Q Zone was sampled. This came about because the initial work targeted the P-Q Layers rather than the entire P-Q Zone.

Sulphur was not analysed in all the samples although variable, but generally low amounts, of sulphides do occur in the P-Q Zone. Sulphur is a deleterious element and needs to be assayed in all future samples.

Elevated phosphorus (P) concentrations occur within the P-Q Zone, although the P-enriched lithological interval appears to be limited to the southernmost holes VK2 and VK7 within an interval of low Fe<sub>2</sub>O<sub>3</sub> content (Figure 7-16). Phosphorus in the Fe<sub>2</sub>O<sub>3</sub>-enriched sections is a deleterious element.

A significant P enrichment (in the form of apatite) occurs immediately above the P-Q Zone and could become of economic significance.

By virtue of the wide drillhole spacing ( $\pm 1\ 900\ \text{m}$ ), the MML is classified as an Inferred Mineral Resource down to a vertical depth of 100 m. Owing to the closer spacing of drillholes ( $\leq 600\ \text{m}$ ), the P-Q Zone can generally be categorised as an Indicated Mineral Resource down to a vertical depth of 200 m, and as an Inferred Mineral Resource from vertical depths of 200 m to 400 m. Additional in-fill drilling has the potential to upgrade these resources. Realistic stripping ratios currently limit the estimation of formal mineral resources to the depth categories above.

The drilling, drill core sampling and assay programme conducted by Frontier has been critically reviewed and no material issues which could impact on the mineral resource have been identified. The number of field duplicates inserted into the sample stream needs to be increased to 5% to comply with industry best practice QAQC standards.

## 19.1 Project Risks

Typical beneficiation options will be high consumers of energy. The likelihood of the developer to source requisite sustainable electricity supply from Eskom or any other party in the next 20 years needs to be assessed.

It is necessary to demonstrate whether the in-situ Ti-magnetite material can be upgraded to a *marketable* product in the foreseeable future in a competitive global iron ore market. This will need to take account of growing global production of high grade, easily extracted, direct shipping ore, which generally comes from very large deposits having established rail links to shipping outlets.

The known regional faults and fault zones and the likely presence of associated local fault splays might have a more detrimental effect on the lateral and down-dip continuity of the mineralised zones than currently indicated by the existing borehole spacing. Costs of geophysical surveys and additional drilling could be incurred in order to constrain the impact of the potential structural complications.

The presence of dolerite and/or granitic dykes associated with the tectonic structures may cause a dilution of the mineralisation and increase the percentage of internal waste.

## 20 RECOMMENDATIONS

Ore characterisation test work and general benchmark testwork on upgrading the material to a saleable concentrate need to be carried out. These results can then be used to design pyrometallurgical test work to potentially produce pig iron, vanadium and titanium products.

In-fill drilling is to be undertaken on the MML mineral resource at 250 m spacing in order to upgrade the resource, ultimately to Measured status. The drilling should be limited in vertical depth to approximately 100 m due to the excessive stripping ratios at depths below 100 m. This drilling will also enhance geological confidence in terms of structure.

Drill-testing of the MML and P-Q Zone including the hanging- and footwall disseminations of the P-Q Ti-magnetite Layers should be considered on the adjacent properties Malokong 784LR and Vogelstruisfontein 765LR to extend the current mineral resource further along strike. The potential structural complications on the latter farms need to be assessed through geophysical surveys in conjunction with a reconnaissance drill programme.

Future drill core material should be sampled and analysed over 1-metre intervals and downhole surveys need to be carried out on all boreholes exceeding depths of 150 m.

Analysis of all existing and future samples for sulphur together with the determination of loss on ignition (LOI) on samples that intersect the VTM mineralisation within, or close to the weathered zone should be carried out.

It is recommended that internal V-rich standards are produced and the  $V_2O_5$  concentrations verified by several laboratories by means of a round-robin exercise. The standards should be inserted into future sample batches to monitor and verify concentrations above 0.5%  $V_2O_5$  in samples from the MML.

Multi-element analyses should be carried out on samples from selected boreholes to determine concentration levels of all potentially deleterious elements.

Trenching is recommended to expose and sample in-situ oxidised material for ore characterisation test work and bulk density measurements as well as defining outcrop and sub-outcrop positions.

The existing borehole and assay data need to be captured in a relational, master database to ensure data integrity and ease of data queries.

### 20.1 Scope and budget of future exploration activities

BRL plans to advance the Mokopane Project from its current exploration level through a Scoping Study to a Pre-feasibility Study and ultimately to Feasibility Study over a 2 to 3 year period.

BRL intends to acquire additional farms adjacent to the existing Project area and carry out the following prospecting programme and target evaluation to confirm continuity of VTM

mineralisation over an additional strike length of approximately 10 km. The planned activities include:

- Geological mapping and ground magnetic survey based on CGS aeromagnetic data
- Soil sampling to aid in delineating sub-outcrop positions of MML and P-Q Zone
- Trenching to verify sub-outcrop positions and to test oxidised VTM material
- Diamond drilling programme to determine continuity of MML and P-Q Zone mineralisation
- Preliminary Mineral Resource Estimation

Concurrently with above exploration / evaluation programme on the additional farms, BRL plans the following diamond drilling programme on the existing farms to be part of the Pre-Feasibility Study planned to be completed by mid-2013:

- In-fill drilling and core sampling / assaying on the MML on the farms Vliegekraal and Vriesland to upgrade the MML to an Indicated Mineral Resource category
- Drill-testing and core sampling / assaying of the MML and P-Q Zone on the farms Malokong and Vogelstruisfontein to at least an Inferred Mineral Resource level

In addition to the envisaged drilling campaign, BRL plans to complete the following components of a Pre-feasibility Study on the Mokopane Project by mid-2013:

- Indicated / Inferred Mineral Resource Estimation on the existing and new farms
- Trenching of the MML and P-Q Zone to expose weathered material for processing and metallurgical test work
- Ore characterisation and beneficiation / recovery test work
- Bulk sampling for preliminary pyrometallurgical test work
- Product definition and marketing studies
- Geotechnical studies to determine pit slope stability and mining parameters
- Mining method, mine design, pit optimisation and mine scheduling studies
- Mine engineering and mine tailings
- Environmental studies as stipulated and required by the DMR
- Hydrogeological studies
- Infrastructure (rail and road) and utility (power and water) studies

- Social & Labour Plan
- Financial evaluation (NPV and IRR) including Capex and Opex
- Sensitivity and Risk analyses

The following budget (Table 20-1) is proposed by BRL to increase the current Mineral Resource base and to advance the Project to a level required for a Pre-Feasibility Study:

<b>Table 20-1 BRL planned budget for Mokopane Project</b>	
	<b>US \$</b>
<b>Acquisition costs for additional Prospecting Rights on adjacent farms</b>	800 000
<b>Geological and Exploration work to increase Mineral Resource base and improve level of confidence</b>	4 422 000
Contingency 10%	522 200
Subtotal	5 744 200
<b>Beneficiation and pyrometallurgical test work</b>	2 350 000
Contingency 25%	587 500
Subtotal	2 937 500
<b>Pre-feasibility Study</b>	2 965 000
Contingency 20%	593 000
Subtotal	3 558 000
<b>Grand Total</b>	<b>12 239 700</b>

Note: Above expenditure excludes Corporate, Administration and Listing costs

MSA has been presented with a detailed breakdown of the individual cost items and is satisfied that the proposed budget should be adequate to finance the planned activities outlined above.

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## 22 DATE AND SIGNATURE PAGE

The undersigned, Frieder Johannes Reichhardt, compiled Sections 1 to 16 inclusive and Sections 18 to 24 of this technical report, titled JORC CPR and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project, with an effective date of 25 November 2011, in support of the public disclosure of technical aspects of the Mokopane Property.

Signed,

A handwritten signature in black ink, appearing to read 'F. Reichhardt', written over a dotted line.

Frieder Johannes Reichhardt

25 November 2011

The undersigned, Michael Robert Hall, compiled Section 17 and contributed to Sections 1 and 19 of this technical report, titled JORC CPR and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project, with an effective date of 25 November 2011, in support of the public disclosure of technical aspects of the Mokopane Property.

Signed,

A handwritten signature in black ink, appearing to read 'Michael Robert Hall', written over a dotted line.

Michael Robert Hall

25 November 2011

## 23 CERTIFICATES

### CERTIFICATE of COMPETENT PERSON

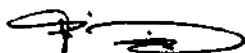
I, Frieder Johannes Reichhardt, Pr.Sci.Nat, FGSSA, MGSG do hereby certify that:

1. I am a Principal Consulting Geologist of:

The MSA Group  
20B Rothesay Avenue,  
Craighall Park,  
Johannesburg,  
2196.

2. I graduated with a degree in MSc in Geology from the Ludwig-Maximilian University of Munich, Germany in 1984. In addition, I obtained an PhD in Geology at the University of Pretoria, South Africa, in 1989 as part of my studies at the former Bushveld Research Institute in Pretoria, South Africa
3. I am a fellow of the Geological Society of South Africa, a member of the German Geological Society and a Professional Natural Scientist (Pr.Sci.Nat.) registered with the South African Council for Natural Scientific Professions.
4. I have worked as a geologist for a total of 21 years since my graduation from university.
5. I have read the definition of “competent person” set out in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) and certify that by reason of my education, affiliation with a professional association (as defined in the JORC Code) and past relevant work experience, I fulfil the requirements to be a “competent person” for the purposes of the JORC Code.
6. I am responsible for the preparation of Sections 1 to 16 and 18 to 24 the Report titled “JORC CPR and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project” and dated November 25, 2011 (the “Technical Report”) relating to the Mokopane Fe-V-Ti properties. I visited the properties on 12<sup>th</sup> May 2011.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I am independent of the issuer applying all of the tests in Table 1 of the JORC Code.
10. I have read the JORC Code and the Technical Report has been prepared in compliance with the guidelines contained in that Code.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this **25<sup>th</sup>** Day of November, 2011



Frieder Johannes Reichhardt



## CERTIFICATE of COMPETENT PERSON

I, Michael Robert Hall, Pr.Sci.Nat, MAusIMM do hereby certify that:

12. I am Consulting Geologist, Mineral Resources of:

The MSA Group  
20B Rothesay Avenue,  
Craighall Park,  
Johannesburg,  
2196.

13. I graduated with a degree in BSc (Hons) in Mining Geology from the University of Leicester, United Kingdom in 1980. In addition, I obtained an MBA the Business School of the University of the Witwatersrand, South Africa, in 2003.
14. I am a member of the Australasian Institute of Mining and Metallurgy, the Geological Society of South Africa and a Professional Natural Scientist (Pr.Sci.Nat.) registered with the South African Council for Natural Scientific Professions.
15. I have worked as a geologist for a total of 30 years since my graduation from university.
16. I have read the definition of "competent person" set out in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) and certify that by reason of my education, affiliation with a professional association (as defined in the JORC Code) and past relevant work experience, I fulfil the requirements to be a "competent person" for the purposes of the JORC Code.
17. I am responsible for the preparation of Section 17 of the Report titled "JORC CPR and Mineral Resource Estimate for the Mokopane Fe-V-Ti Project" and dated November 25, 2011 (the "Technical Report") relating to the Mokopane Fe-V-Ti properties.
18. I have not had prior involvement with the property that is the subject of the Technical Report.
19. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
20. I am independent of the issuer applying all of the tests in Table 1 of the JORC Code.
21. I have read the JORC Code and the Technical Report has been prepared in compliance with the guidelines contained in that Code.
22. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this **25<sup>th</sup>** Day of November, 2011

Michael Robert Hall

## 24 GLOSSARY OF TECHNICAL TERMS

<i>aeromagnetic survey</i>	Surveys flown by helicopter or fixed wing aircraft to measure the magnetic susceptibility of rocks at or near the earth's surface
<i>amsl</i>	Above mean sea level; refers to the elevation of any object, relative to the average sea level datum
<i>anorthosite</i>	Intrusive igneous rock characterized by a predominance of plagioclase feldspar (90–100%), and a minimal mafic component
<i>apatite</i>	Apatite is the principal phosphate mineral, $\text{Ca}_5(\text{PO}_4)_3(\text{F}, \text{Cl}, \text{OH})$ and used in the manufacture of fertilizer
<i>Archaean</i>	The oldest rocks of the Precambrian era, older than about 2 500 Ma
<i>basalt</i>	A common volcanic rock, dark and fine grained, relatively low in silica. May form very extensive lava flows.
<i>basement</i>	The igneous and metamorphic crust of the earth, underlying sedimentary deposits
<i>bedrock</i>	The first hard and solid rock underlying soil or unconsolidated overburden
<i>breccia</i>	A coarse grained rock made up of large angular fragments, sometimes of various rock types
<i>carbonate</i>	A rock, usually of sedimentary origin, composed primarily of calcium, magnesium or iron and $\text{CO}_3$ . Essential component of limestones and marbles
<i>core drilling</i>	Method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit
<i>chromite</i>	An oxide of chromium, $(\text{Mg}, \text{Fe})\text{Cr}_2\text{O}_4$
<i>craton</i>	Large, and usually ancient, stable mass of the earth's crust comprised of various crustal blocks amalgamated by tectonic processes. A cratonic nucleus is an older, core region embedded within a larger craton
<i>diamond drilling</i>	synonymous with <i>core drilling</i>
<i>Dip and dip direction</i>	The dip direction is the azimuth of the direction of the dip as projected to the horizontal, which is $90^\circ$ off the strike angle
<i>dyke</i>	A vertical or near vertical sheet of igneous rock, the widths of which may range from centimetres to hundreds of meters
<i>EIA</i>	Environmental Impact Assessment

<i>eluvium</i>	Sediment derived from the physical and/or chemical decomposition of the underlying bedrock
<i>EMP</i>	Environmental Management Plan
<i>facies</i>	The sum of the lithological (and palaeontological) characters of a particular rock
<i>fault</i>	A fracture or fracture zone, along which displacement of opposing sides has occurred
<i>feldspar</i>	A rock-forming, light-coloured mineral belonging to the family of silicate minerals which occur in igneous rocks; ( $\text{KAlSi}_3\text{O}_8$ – $\text{NaAlSi}_3\text{O}_8$ – $\text{CaAl}_2\text{Si}_2\text{O}_8$ )
<i>Ga</i>	Giga years (1 Ga = 1,000 million years)
<i>gabbro</i>	Belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Clinopyroxene is the dominant mafic mineral
<i>gabbronorite</i>	Belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Clinopyroxene and orthopyroxene are the dominant mafic mineral
<i>geophysical surveys</i>	Instrumental surveys measuring small variations in the earth's magnetic field, gravity field or electrical conductivity (in addition to some other properties) related to local variations in rock type. Magnetic and some electrical methods can be carried out from an aircraft
<i>gneiss</i>	A coarse-grained, banded, high grade metamorphic rock
<i>gravity survey</i>	A geophysical survey technique which detects variations in the earth's gravity field due to variations in the specific gravity of the underlying rock
<i>GPS</i>	Global Positioning System. A satellite based navigation system able to give real time positions to approx $\pm 5$ m in X and Y using simple hand held instruments
<i>ha</i>	Hectare = 10 000 m <sup>2</sup>
<i>ilmenite</i>	An iron, magnesium and titanium oxide ((Fe,Mg)TiO <sub>3</sub> )
<i>Indicated Mineral Resource</i>	An Indicated Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through

	appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed. (CIM definition)
<i>Inferred Mineral Resource</i>	An Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. (CIM definition)
<i>intrusion</i>	Liquid rock (magma) that forms below the surface of earth and slowly cools into a solid rock mass
<i>joints</i>	Regular planar fractures or fracture sets in massive rocks, usually created by unloading, along which no relative displacement has occurred
<i>Layered Complex</i>	A body of igneous rock which exhibits vertical layering or differences in composition and texture and shows evidence of fractional crystallisation. Ideally, the stratigraphic sequence of an ultramafic-mafic intrusive complex consists of ultramafic peridotites and pyroxenites toward the base with more mafic norites, gabbros and anorthosites in the upper layers
<i>lineament</i>	A significant linear feature of the earth's crust
<i>Ma</i>	Million years
<i>mafic</i>	Descriptive of rocks composed dominantly of magnesium and iron rock-forming silicates
<i>magmatic</i>	Rock formed from crystallization of molten magma; an igneous rock
<i>magnetic survey</i>	A geophysical survey which measures variations in the earth's magnetic field caused by differences in the magnetic susceptibilities of underlying rock. Kimberlite may be detected by this method, as its susceptibility may be higher or lower than surrounding rock types
<i>magnetic susceptibility</i>	A dimensionless constant that indicates the degree of magnetisation of a material in response to an applied magnetic field
<i>Measured Mineral Resource</i>	A Measured Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate

	is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity. (CIM definition)
<i>metamorphism</i>	Alteration of rock and changes in mineral composition, most generally due to increase in pressure and/or temperature
<i>norite</i>	Belongs to a group of dark, coarse-grained, intrusive mafic igneous rocks chemically equivalent to basalt. Orthopyroxene is the dominant mafic mineral
<i>olivine</i>	A dark-coloured magnesium iron silicate with the formula $(Mg,Fe)_2SiO_4$
<i>Palaeozoic</i>	An era of geologic time between the Late Precambrian and the Mesozoic era, 545 Ma to 251 Ma ago
<i>petrography</i>	The description and classification of rocks
<i>Percussion drilling</i>	Drilling by means of an air hammer which breaks the rock into chips which are brought to surface by air circulation
<i>plagioclase</i>	A rock-forming, light-coloured mineral belonging to the family of silicate minerals which occur in igneous rocks; $(NaAlSi_3O_8 - CaAl_2Si_2O_8)$
<i>Precambrian</i>	Pertaining to all rocks formed before Cambrian time (older than 545 Ma)
<i>Proterozoic</i>	An era of geological time spanning the period from 2 500 Ma to 545 Ma before present
<i>ppm</i>	Parts per million. Measure used to describe very low concentrations of a particular element in a rock
<i>PR</i>	Prospecting Right
<i>pyroxene (ortho- and clino-)</i>	Important dark-coloured rock-forming silicate mineral, occurring in both orthorhombic, orthopyroxene $(Mg,Fe)_2Si_2O_6$ and monoclinic, clinopyroxene form $Ca(Mg,Fe) Si_2O_6$
<i>RC drilling</i>	Reverse circulation drilling. A percussion drilling technique in which the sample is brought to surface by air and/or water through the centre of the drill pipe
<i>SG or RD (relative density)</i>	Specific gravity (SG) is the ratio of the density of a rock or any other substance to the density of a reference substance (normally water which has a relative density or specific gravity of 1). SG is a



	dimensionless unit
<i>spinel</i>	A group of oxide minerals of various compositions, (Mg,Fe,Mn)(Al,Fe,Cr) <sub>2</sub> O <sub>4</sub> , commonly occurring as an accessory in basic igneous rocks
<i>strike</i>	Horizontal direction or trend of a geological structure
<i>Ti-magnetite</i>	An iron oxide minerals (Fe <sub>2</sub> O <sub>3</sub> ) of the spinel group with a high titanium content (generally in excess of 5% TiO <sub>2</sub> )
<i>tonne</i>	A metric tonne, 1,000 kg
<i>tectonic</i>	Pertaining to the forces involved in, or the resulting structures of, movement in the earth's crust
<i>Transvaal Supergroup</i>	The Transvaal Supergroup consists of 2.65–2.05 Ga clastic, pelitic and chemical sediments with minor lava flows that surface in the Transvaal Basin which circumscribes the Bushveld Complex
<i>troctolite</i>	Mafic intrusive rock consisting of olivine, plagioclase and minor pyroxene
<i>ultramafic</i>	Igneous rocks consisting essentially of ferromagnesian minerals with trace quartz and feldspar.
<i>variography</i>	In spatial statistics, a process of graphing statistics which relate to the variance of the difference in value between pairs of samples to the distance between them. Allows the weighting of a sample value in terms of its distance from the point where an estimate of sample value is required
<i>VTM</i>	Vanadiferous and titaniferous magnetite; vanadium and titanium occur in the magnetite crystal structure as "solid solution"
<i>vanadium</i>	A chemical element with the symbol V and atomic number 23. It is a hard, silvery gray, ductile and malleable transition metal
<i>width (apparent and true width)</i>	The width of a tabular formation as determined by borehole intercepts. The apparent width will always be greater than the true width if the borehole intersects the tabular body at any direction and angle other than perpendicular to the surface of the body. An intersection perpendicular (at a 90° angle) to the tabular body will provide the true width of this formation



**APPENDIX 1:**

**Certificate of Analysis for Certified Reference Material (CRM) AMIS129**

# African Mineral Standards

## Vanadium bearing Titaniferous Iron Ore Standard Rooiwater Complex South Africa

**AMIS0129**

### *Certificate of Analysis*

**Recommended Concentration and two "Between Laboratory"  
Standard Deviations**

#### ***Certified Concentrations***

Al <sub>2</sub> O <sub>3</sub>	2.75	+/-	0.10	%
CaO	0.80	+/-	0.02	%
Fe <sub>2</sub> O <sub>3</sub>	62.31	+/-	0.50	%
MgO	2.07	+/-	0.18	%
MnO	0.36	+/-	0.02	%
SiO <sub>2</sub>	9.57	+/-	0.24	%
TiO <sub>2</sub>	22.94	+/-	0.70	%
V <sub>2</sub> O <sub>5</sub>	0.48	+/-	0.04	%

#### ***Provisional Concentration***

LOI 1.51 +/- 0.24 %

#### ***Indicated Means***

Cr <sub>2</sub> O <sub>3</sub>	0.03	%
K <sub>2</sub> O	0.02	%
Na <sub>2</sub> O	0.03	%

**Intended use:** AMIS0129 is suitable for monitoring the accuracy of a single analysis of vanadium bearing titaniferous iron ores. The material can be used for routine quality control by inserting within a batch of samples.

The recommended mean and "Between Lab" standard deviations for this standard reflect the average results from the laboratories that participated in the round robin. Slight variations in analytical procedures between laboratories will reflect as slight biases to the recommended concentrations and this is acceptable. Good laboratories however will report results within the two standard deviation levels with a failure of <10 %.

**Origin of material:** The material for this standard was provided by Tivani (Pty) Ltd. from an exploration project in the late-Archean Rooiwater Complex situated in the eastern sector of the Murchison Range 10km north of Gravelotte in the Limpopo Province of South Africa. The material was collected off stockpiles resulting from exploration development into vanadium-bearing, Ti-magnetite rich layers that are present within the upper portion of the mafic Novengilla Gabbro Suite.

**Mineral and chemical composition:** The two major titaniferous magnetite layers are relatively pure, containing minor chlorite towards the edges. The upper layer contains minor appetite. The ore comprises smaller ilmenite crystals located interstitially between larger Ti-magnetite crystals.

*Ref; Reynolds, I.M. (1986). Vanadium-bearing titaniferous iron ores of the Rooiwater Complex, NorthEastern Transvaal. In Anhauser, C.R., and Maske, S. (eds) (1986), Mineral Deposits of Southern Africa, 451-460.*

**Appearance:** The material is a very fine powder coloured Dark Grey (Corstor Colour Guage).

**Method of preparation:** The material was crushed, dry-milled and air-classified to 100% <54um. Wet sieve particle size analysis of random samples confirmed the material was 100% <54um. It was then blended in a bi-conical mixer, systematically divided and then sealed into 1kg Laboratory Packs. Samples were randomly selected for homogeneity testing and third party analysis. Statistical analysis for the consensus test results were carried out by an independent statistician. Explorer Packs are subdivided from the Laboratory packs as required.

**Methods of analysis requested:**

1. LOI 1000C.
2. Majors ( Al<sub>2</sub>O<sub>3</sub>, CaO, Cr<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, SiO<sub>2</sub>, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>. ) XRF fusion.

**Method of certification:** Twelve laboratories were each given eight randomly selected packages of sample. The results from the ten laboratories that issued results timeously were used for the certification.

The mean and standard deviation for all data was calculated. Outliers were defined as samples beyond the mean  $\pm$  2 Standard Deviations from all data. These outliers were removed from the data and a new mean and standard deviation was determined.

Standards with an RSD of near or less than 5 % are then certified, RSD's of between near 5 % and 15 % are given Provisional Concentrations and limits, those with RSD's over 15 % are given Indicated Concentrations.

This method is different from that used to calculate the Confidence Interval shown on many Government-produced standards in that the actual "between-laboratory" standard deviation is used in the calculations.

This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Certified Limits published on other standards which quote a Confidence Interval.

**Participating laboratories:** (Not in same order as in the table of assays)

1. Activation Laboratories Ltd., (ActLabs, Ancaster, ON, Canada).
2. ALS Chemex, (Perth, Australia).
3. ALS Chemex, (Vancouver, Canada).
4. Genalysis Laboratory Services ( Pty ) Ltd., (Australia).
5. Geoservice Centre, Geolaboratory, (GTK. Finland).
6. Pt Intertek Utama Services (Intertek, Indonesia)
7. Set Point Laboratories ( Pty ) Ltd (South Africa)
8. SGS Lakefield Research (Canada)
9. SGS Welshpool (Australia).
10. Ultra Trace ( Pty ) Ltd. (Australia).

**Assay Data:** Data as received from the laboratories is set out below. A proficiency report has been sent to the managers of the participating laboratories.

Lab Code	Al2O3 XRF %	CaO XRF %	Cr2O3 XRF %	Fe2O3 XRF %	K2O XRF %	LOI %	MgO XRF %	MnO XRF %	Na2O XRF %	SiO2 XRF %	TiO2 XRF %	V2O5 XRF %
A	2.75	0.80	0.04	62.40	0.02	1.68	2.07	0.35	0.05	9.53	22.90	0.46
A	2.76	0.80	0.04	62.30	0.02	1.62	2.07	0.35	0.05	9.53	22.80	0.46
A	2.76	0.80	0.04	62.40	0.02	1.65	2.06	0.35	0.06	9.56	22.80	0.45
A	2.75	0.79	0.04	62.30	0.02	1.66	2.08	0.35	0.05	9.54	22.80	0.46
A	2.77	0.80	0.03	62.20	0.02	1.64	2.07	0.35	0.05	9.60	22.90	0.45
A	2.74	0.79	0.03	62.40	0.02	1.66	2.07	0.35	0.04	9.53	22.90	0.46
A	2.75	0.80	0.04	62.40	0.02	1.64	2.07	0.35	0.05	9.54	22.80	0.46
A	2.73	0.80	0.04	62.40	0.02	1.66	2.07	0.35	0.06	9.55	22.80	0.46
B												
B												
B												
B												
B												
B												
B												
B												
C	2.86	0.79	0.03	62.77	0.05		2.14	0.36	0.08	9.44	22.49	0.24
C	2.83	0.80	0.03	62.65	0.09		2.17	0.36	0.11	9.36	22.47	0.27
C	2.87	0.80	0.03	62.73	0.05		2.15	0.36	0.09	9.47	22.58	0.23
C	2.86	0.81	0.03	62.50	0.04		2.15	0.36	0.06	9.44	22.57	0.28
C	2.80	0.78	0.03	62.39	0.05		2.13	0.36	0.06	9.40	22.52	0.20
C	2.78	0.81	0.03	62.82	0.04		2.14	0.36	0.05	9.78	22.72	0.18
C	2.83	0.79	0.03	62.34	0.05		2.14	0.36	0.12	9.44	22.42	0.21
C	2.81	0.79	0.03	62.47	0.03		2.16	0.36	0.07	9.41	22.51	0.18
D	2.75	0.83	0.07	62.10	0.02	1.65	1.88	0.29	0.04	9.60	23.00	0.57
D	2.73	0.83	0.01	62.20	0.02	1.39	1.89	0.32	0.04	9.49	23.10	0.57
D	2.74	0.83	0.01	62.10	0.02	1.93	1.91	0.32	0.03	9.61	23.10	0.57
D	2.75	0.84	0.00	62.20	0.02	1.78	1.90	0.32	0.03	9.60	23.00	0.57
D	2.78	0.83	0.02	62.20	0.02	2.56	1.91	0.31	0.02	9.61	23.00	0.57
D	2.78	0.85	0.00	62.20	0.02	1.93	1.90	0.32	0.03	9.53	23.00	0.57
D	2.74	0.84	0.01	62.10	0.02	1.68	1.92	0.32	0.03	9.68	23.00	0.57
D	2.76	0.84	0.01	62.30	0.02	1.62	1.91	0.32	0.03	9.60	22.90	0.57
E	2.82	0.81		62.25	0.03	1.46	2.01	0.36	0.12	9.63	22.62	0.07
E	2.82	0.80		62.08	0.03	1.46	2.01	0.36	0.13	9.66	22.54	0.07
E	2.82	0.80		61.94	0.03	1.46	2.00	0.36	0.13	9.62	22.73	0.09
E	2.83	0.80		62.04	0.03	1.47	2.01	0.36	0.12	9.69	22.68	0.07
E	2.83	0.81		61.93	0.03	1.48	2.01	0.36	0.13	9.63	22.81	0.07
E	2.82	0.81		62.19	0.03	1.48	2.01	0.36	0.12	9.66	23.15	0.09
E	2.80	0.81		61.98	0.03	1.47	2.01	0.36	0.12	9.68	23.01	0.09
E	2.81	0.81		62.23	0.03	1.47	2.00	0.36	0.12	9.65	22.88	0.09

Lab Code	Al2O3 XRF %	CaO XRF %	Cr2O3 XRF %	Fe2O3 XRF %	K2O XRF %	LOI %	MgO XRF %	MnO XRF %	Na2O XRF %	SiO2 XRF %	TiO2 XRF %	V2O5 XRF %
F	2.73	0.81	0.03	61.91	0.02	1.49	2.10	0.36	0.02	9.62	23.46	0.49
F	2.71	0.80	0.03	61.65	0.02	1.48	2.10	0.35	0.03	9.76	23.37	0.49
F	2.71	0.80	0.03	61.50	0.02	1.50	2.09	0.35	0.02	9.61	23.31	0.49
F	2.73	0.81	0.03	61.91	0.02	1.49	2.10	0.36	0.02	9.58	23.47	0.49
F	2.71	0.80	0.03	61.81	0.02	1.49	2.10	0.36	0.02	9.50	23.44	0.49
F	2.73	0.80	0.03	62.04	0.02	1.48	2.11	0.36	0.02	9.54	23.48	0.49
F	2.74	0.84	0.03	61.98	0.03	1.48	2.10	0.36	0.03	9.75	23.48	0.49
F	2.72	0.80	0.03	61.95	0.02	1.48	2.10	0.36	0.02	9.56	23.48	0.49
G	2.68	0.79	0.03	63.00	0.01		1.97	0.38		9.37	23.10	0.51
G	2.65	0.80	0.03	62.80	0.01		1.98	0.38		9.41	23.10	0.50
G	2.71	0.80	0.04	62.40	0.02		1.99	0.37		9.24	23.00	0.50
G	2.64	0.79	0.03	62.30	0.02		1.95	0.37		9.24	22.90	0.50
G	2.66	0.79	0.04	62.60	0.02		1.97	0.38		9.33	23.00	0.50
G	2.72	0.80	0.03	62.90	0.02		1.99	0.38		9.44	23.20	0.50
G	2.65	0.80	0.05	62.70	0.03		2.02	0.39		9.38	23.10	0.50
G	2.69	0.81	0.05	60.83	0.03		1.97	0.38		9.38	23.10	0.50
H	2.71	0.73	0.02	60.83	0.02		2.20	0.30		9.95	22.26	0.51
H	2.71	0.73	0.02	60.82	0.02		2.22	0.31		9.94	22.25	0.51
H	2.69	0.74	0.02	60.80	0.01		2.19	0.31		9.93	22.29	0.50
H	2.70	0.73	0.02	60.76	0.02		2.21	0.31		9.92	22.30	0.50
H	2.69	0.74	0.02	60.98	0.02		2.23	0.31		9.93	22.32	0.50
H	2.67	0.74	0.02	60.87	0.01		2.18	0.31		9.84	22.27	0.50
H	2.70	0.73	0.02	60.93	0.02		2.20	0.30		9.90	22.29	0.51
H	2.68	0.73	0.02	63.59	0.02		2.20	0.31		9.89	22.27	0.50
I	2.40	0.84		63.70		1.42		0.36	0.11	7.94	22.76	0.48
I	2.40	0.86		64.89		1.42		0.35	0.11	8.61	22.88	0.48
I	2.40	0.83		64.55		1.40		0.35	0.10	8.24	23.20	0.50
I	2.40	0.82		65.30		1.43		0.35	0.11	8.03	23.12	0.49
I	2.40	0.90		65.26		1.44		0.36	0.11	8.59	23.37	0.51
I	2.45	0.84		64.69		1.43		0.35	0.12	8.20	23.30	0.51
I	2.39	0.88		64.37		1.43		0.35	0.11	9.34	23.19	0.50
I	2.42	0.89				1.42		0.35	0.11	9.09	23.07	0.49
J	2.72	0.80	0.03	62.30	0.02	1.70	2.07	0.35	0.04	9.59	23.00	0.48
J	2.74	0.80	0.03	62.30	0.02	1.67	2.07	0.35	0.03	9.58	22.90	0.47
J	2.73	0.80	0.03	62.40	0.02	1.70	2.07	0.35	0.04	9.60	22.90	0.48
J	2.71	0.80	0.03	62.30	0.02	1.75	2.07	0.35	0.04	9.60	22.90	0.48
J	2.71	0.80	0.03	62.30	0.02	1.71	2.07	0.35	0.03	9.60	22.90	0.48
J	2.74	0.79	0.03	62.40	0.02	1.82	2.08	0.35	0.04	9.60	23.00	0.48
J	2.74	0.79	0.03	62.30	0.02	1.83	2.08	0.35	0.03	9.63	23.00	0.47
J	2.71	0.80	0.04	62.40	0.02	1.71	2.08	0.35	0.03	9.59	22.90	0.48
K												
K												
K												
K												
K												
K												
K												
K												
L	2.76	0.81	0.04	62.00	0.02	1.31	2.09	0.35	0.05	9.39	23.10	0.45
L	2.78	0.79	0.03	62.30	0.02	1.36	2.14	0.37	0.03	9.39	23.30	0.45
L	2.79	0.79	0.03	62.50	0.02	1.31	2.15	0.35	0.04	9.52	23.30	0.45
L	2.76	0.79	0.04	62.60	0.02	1.36	2.16	0.37	0.04	9.54	23.40	0.45
L	2.84	0.79	0.04	62.60	0.01	1.39	2.17	0.36	0.04	9.63	23.30	0.44
L	2.72	0.81	0.04	62.60	0.02	1.42	2.15	0.36	0.04	9.51	23.40	0.46
L	2.86	0.83	0.05	62.50	0.02	1.39	2.17	0.36	0.04	9.74	23.50	0.46
L	2.78	0.81	0.04	62.60	0.01	1.49	2.16	0.36	0.04	9.54	23.40	0.44

**Availability:** This product is available in Laboratory Packs containing 1kg of material or in Explorer Packs containing client specified weights of material from 50g up to 250g. Laboratory Packs are sealed bottles delivered in sealed foil pouches. Explorer Packs contain material in standard geochem envelopes placed into foil pouches that are nitrogen flushed and vacuum sealed.

**Legal notice:** This certificate and the reference material described in it have been prepared with due care and attention. However AMIS, Set Point Technology (Pty) Ltd, Mike McWha, Dr Barry Smee and Smee and Associates Ltd; accept no liability for any decisions or actions taken following the use of the reference material.

29 January 2008

**Certifying officers:**



**African Mineral Standards:** \_\_\_\_\_

**Mike McWha**  
**BSc (Hons), FGSSA, MSAIMM, Pr.Sci.Nat**

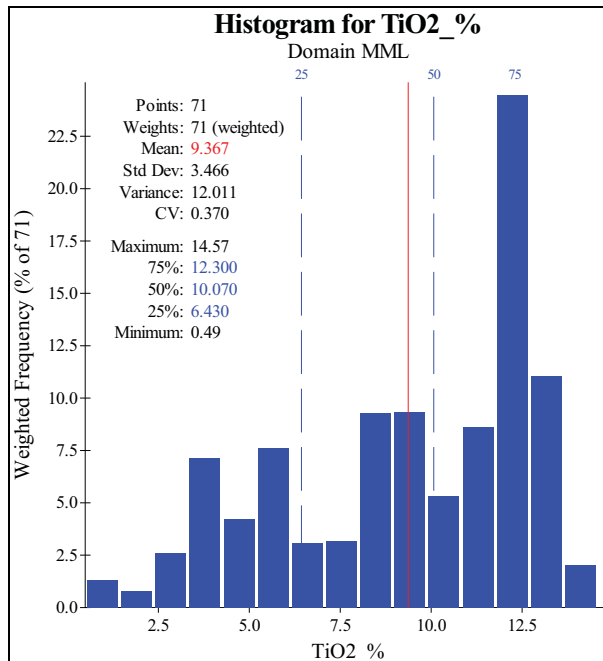
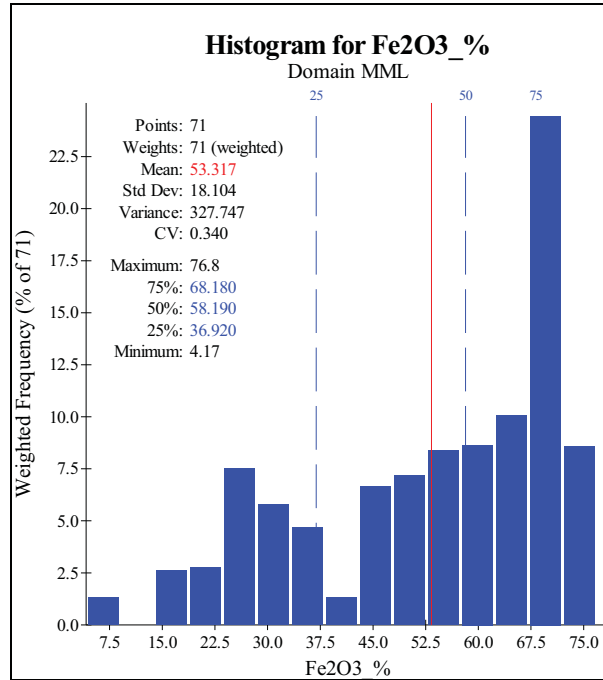


**Geochemist:** \_\_\_\_\_

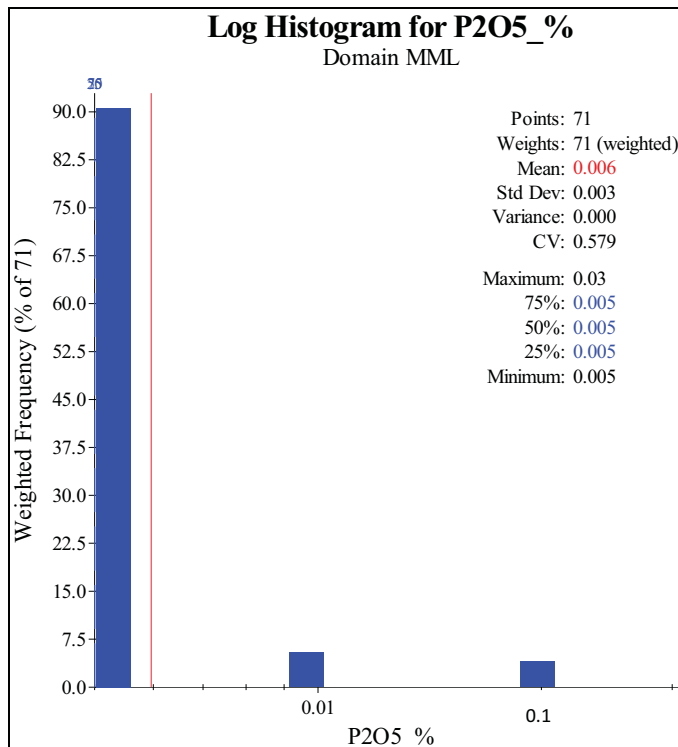
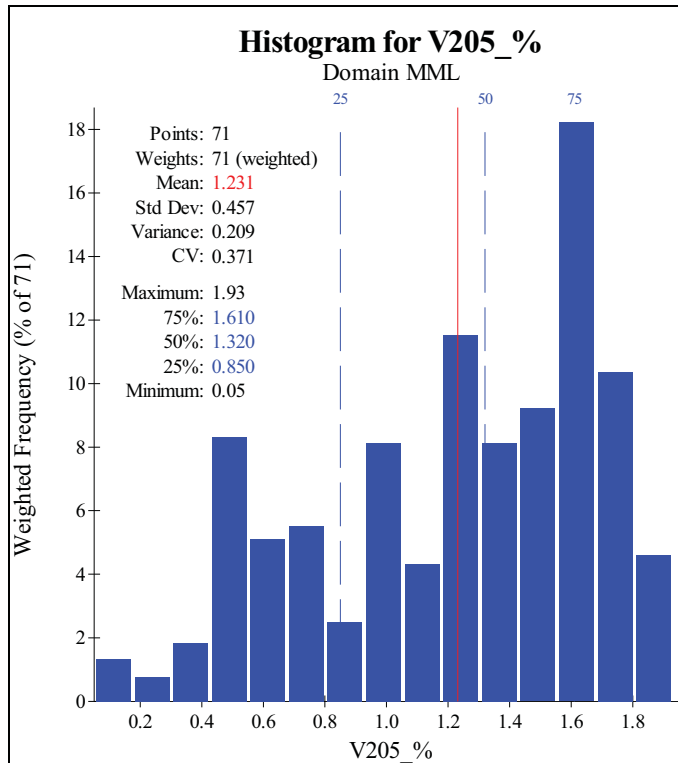
**Barry W. Smee**  
**BSc, PhD, P.Geo, (B.C.)**

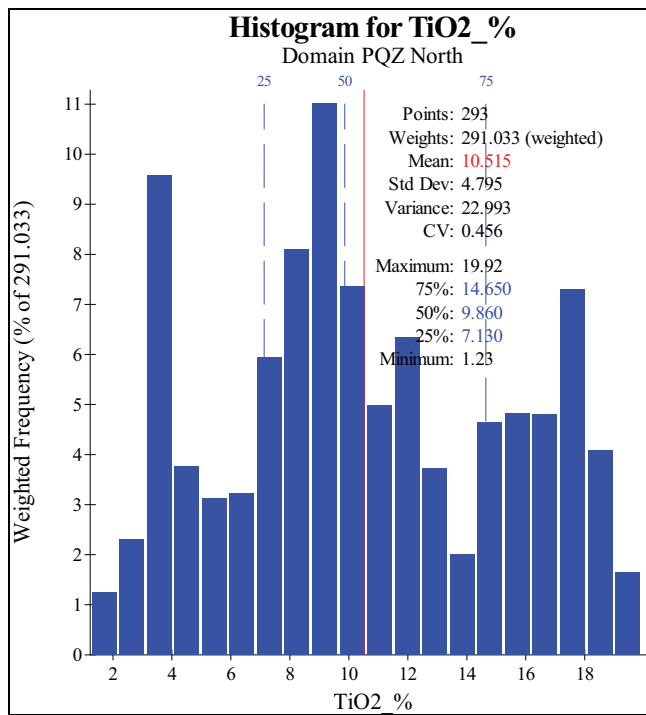
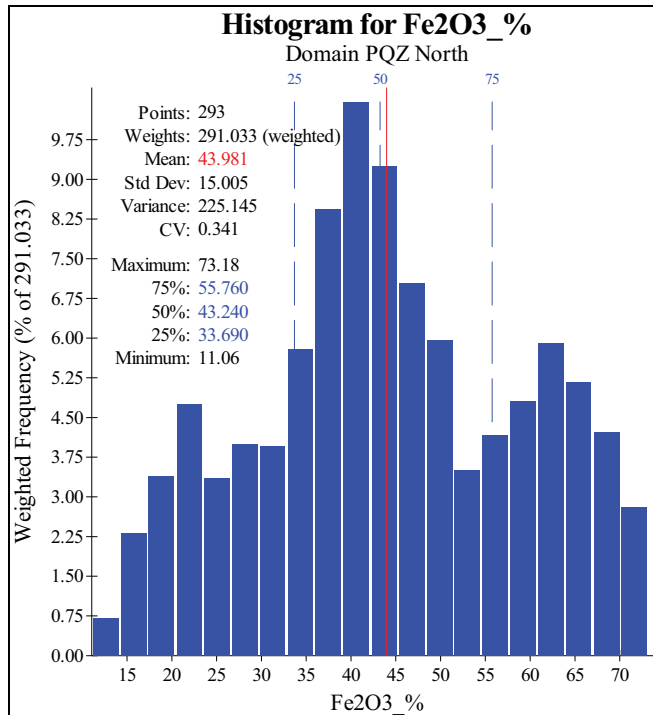
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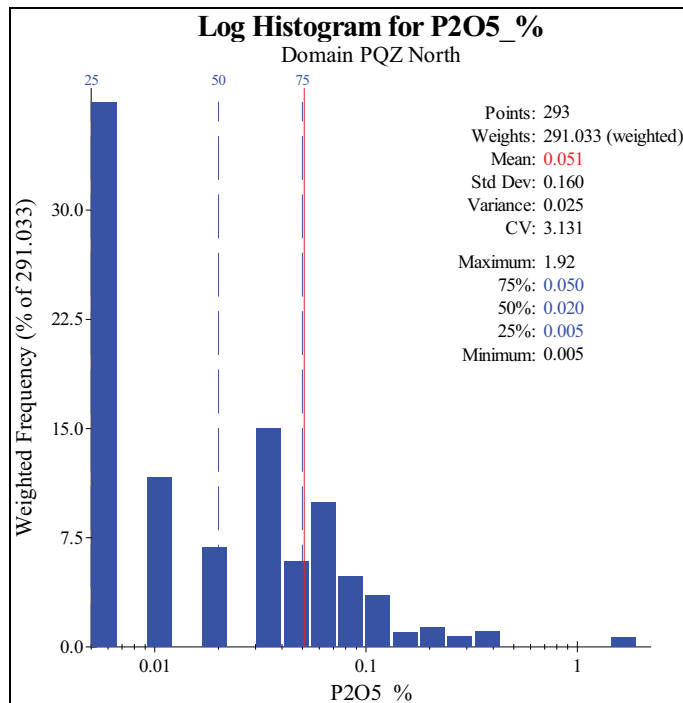
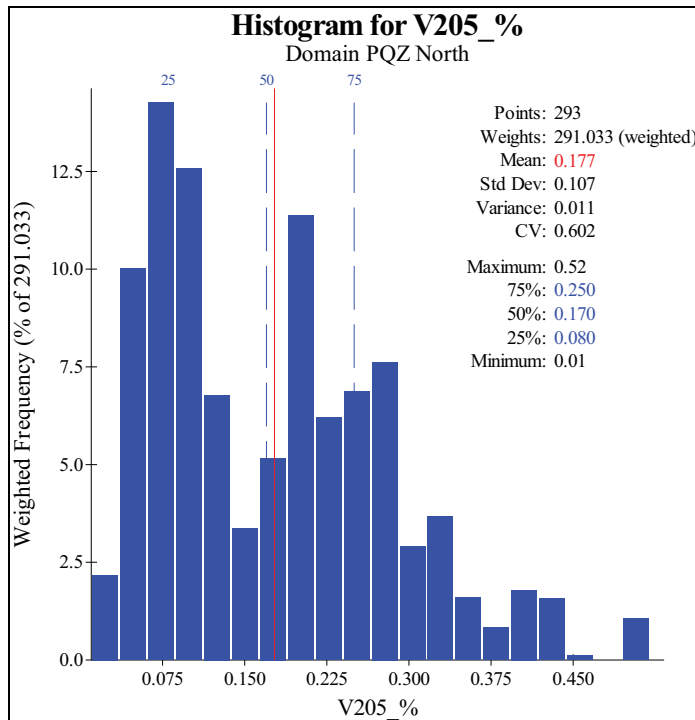
**Histograms of the elemental population distribution**

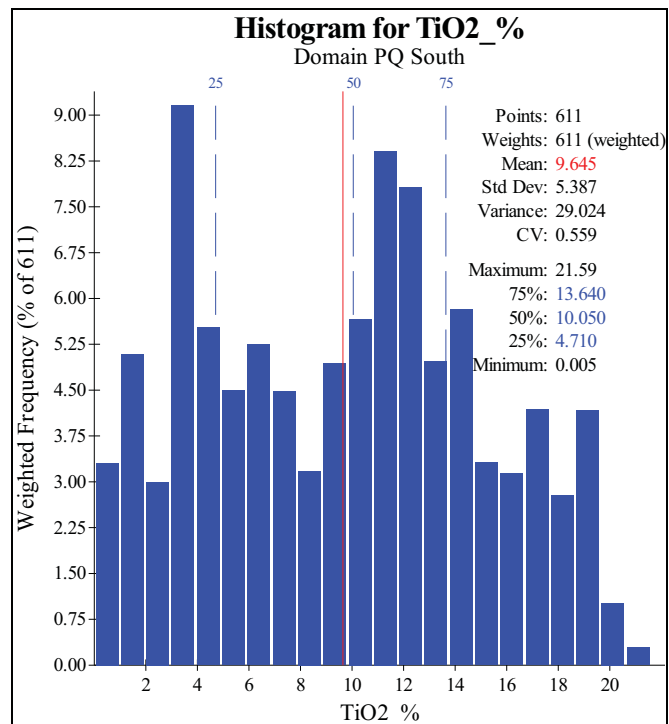
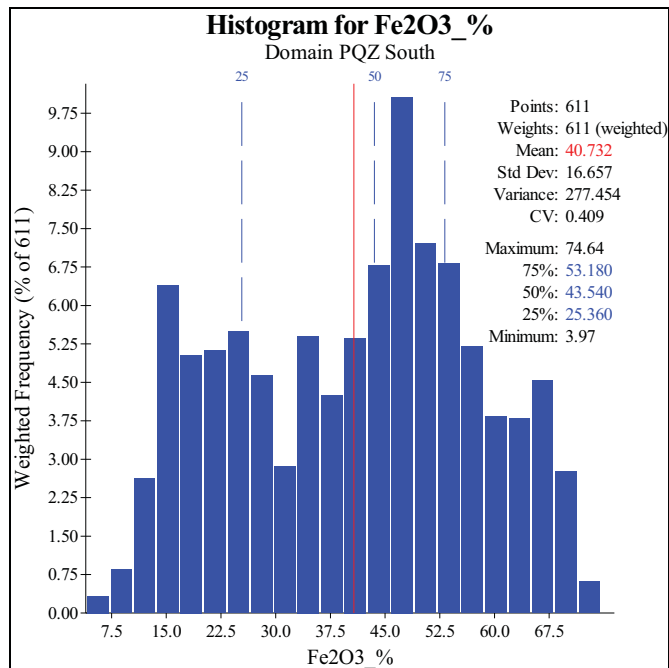


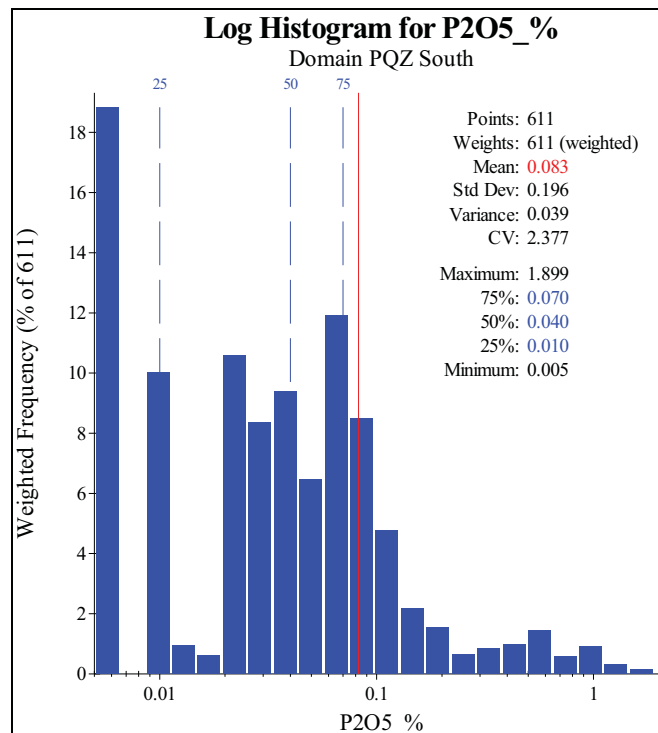
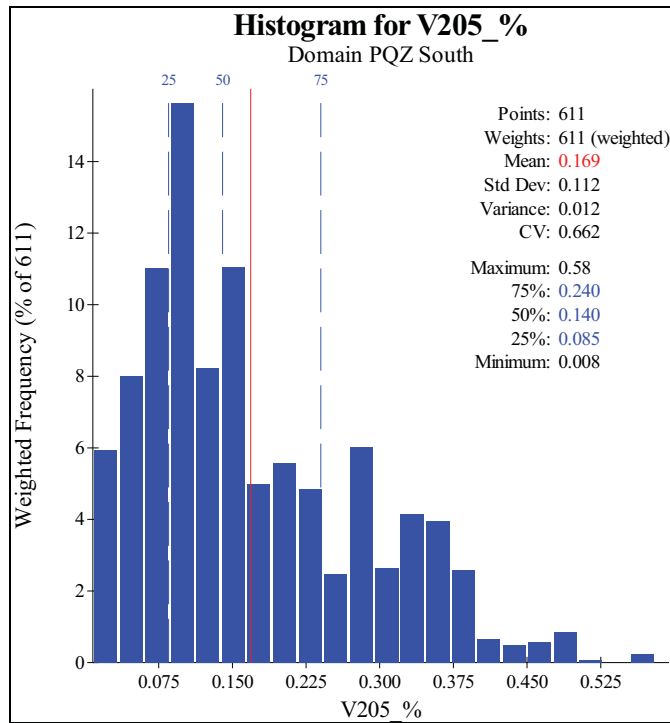














## Mokopane Tin Project, South Africa

### Independent Technical Report

Prepared by MSA Geoservices (Pty) Ltd on behalf of:  
**Greenhills Resources Ltd and Fox Davies Capital Ltd**

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<b>Author(s):</b>	Mike Lynn	Principal Consultant	MSc. Pr.Sci.Nat.
	Mike Hall	Principal Consultant	BSc. MBA AusIMM
	Dr Leon Liebenberg	Associate Consultant	DSc. Pr.Sci.Nat.

**Date:** 26 September 2011

**Project Code:** J2170

A handwritten signature in black ink, appearing to read 'L. Liebenberg', is written over a horizontal line.

Primary Author  
Dr Leon Liebenberg

A handwritten signature in black ink, appearing to read 'M. Lynn', is written over a horizontal line.

Supervising Principal  
Mr Mike Lynn



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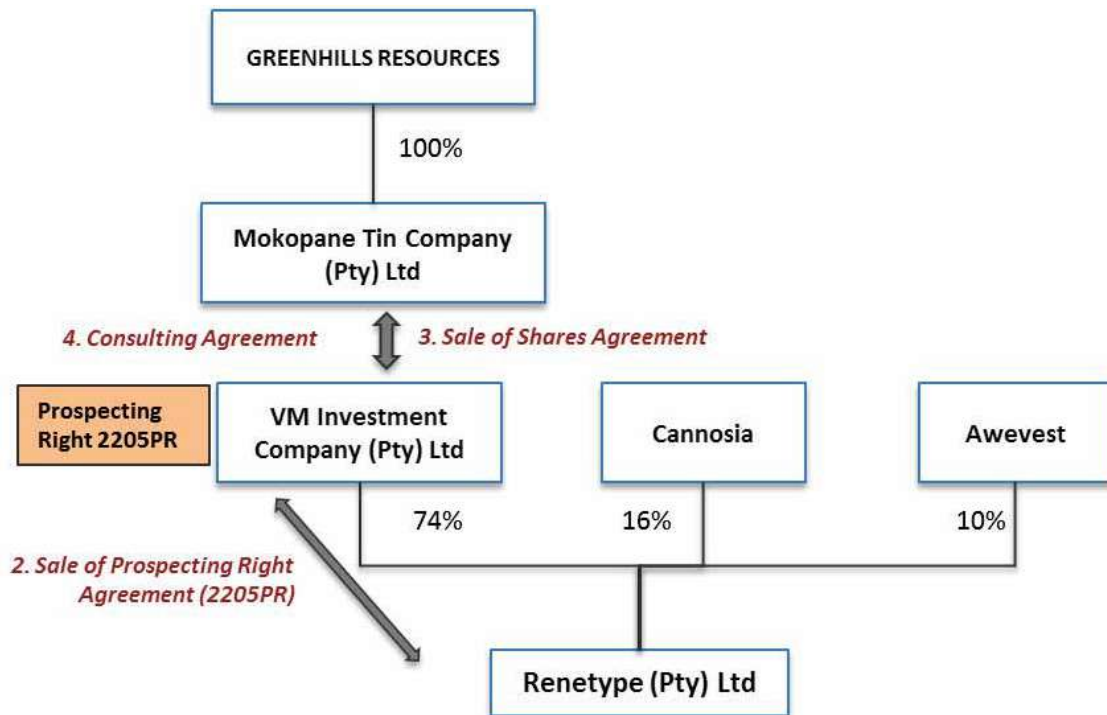
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**Appendix 1** : Geological sections of the Mokopane Tin Project Groenfontein mineral resource.

# 1 SUMMARY

The Mokopane Tin Project property comprises six farms situated over the acid phase rocks of the Bushveld Complex. The property is approximately 13 422 ha in extent. The equivalent of nearly 22 000 tonnes of tin metal have been historically produced from four of the farms, from high grade pipe-like mineralisation, and from lower grade disseminated mineralisation occurring near the upper parts of a granite sheet.

Prospecting Right (PR) LP 2205 PR is held in the name of VM Investment Company (Pty) Ltd (VMIC). The license is valid for a period of five years, from 14 July 2010 to 13 July 2015, and grants exclusive prospecting rights to the holder. The PR gives the holder rights to explore for tin, rare earth metals, fluorspar, molybdenum, gold, arsenic, uranium, zirconium, iron ore and zinc. Greenhills Resources Ltd has access to PR 2205 PR through its shareholding of VMIC via the Mokopane Tin Company as shown in the following shareholding structure.



The high grade tin mineralisation has mostly been mined out. However, at least two areas of lower grade disseminated tin mineralisation remain on the farms Groendoorn 225KR and Groenfontein 227KR. This deposit represents only one of five targets identified in the project area. It may be significantly increased through further exploration on these targets. The current focus of the exploration programme is to move the Groenfontein target towards a feasibility study and prove up more tonnes on the other targets. One of these deposits occurs in the Bobbejaankop Granite and has not yet been investigated in detail. The second occurs in the overlying Lease Granite and has been effectively sampled during drilling campaigns undertaken

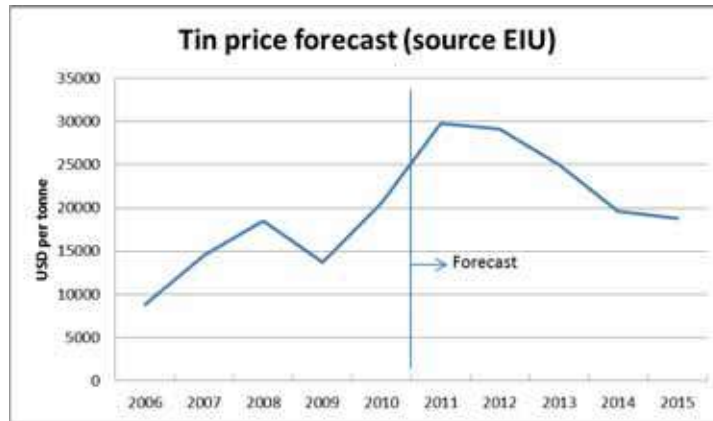
during the 1970s, and verified and enhanced during 2011. Measured, Indicated and Inferred Mineral Resources (as per JORC) have been estimated in the Lease Granite at Groenfontein as shown in the following tables.

<i>Measured</i>				<i>Indicated</i>				<i>Inferred</i>			
Cut-off (%Sn)	Tonnes	Grade (%Sn)	Sn tonnes	Cut-off (%Sn)	Tonnes	Grade (%Sn)	Sn tonnes	Cut-off (%Sn)	Tonnes	Grade (%Sn)	Sn tonnes
0	10,289,000	0.052	5,350	0	85,384,000	0.018	15,369	0	49,073,000	0.017	8,342
0.01	8,459,000	0.062	5,245	0.01	61,591,000	0.023	14,166	0.01	35,681,000	0.021	7,493
0.02	7,359,000	0.069	5,078	0.02	18,954,000	0.05	9,477	0.02	9,843,000	0.046	4,528
0.03	6,153,000	0.078	4,799	0.03	12,169,000	0.064	7,788	0.03	5,745,000	0.062	3,562
0.04	4,802,000	0.09	4,322	0.04	8,451,000	0.078	6,592	0.04	3,901,000	0.075	2,926
0.05	3,722,000	0.104	3,871	0.05	6,550,000	0.088	5,764	0.05	2,990,000	0.085	2,542
0.06	2,884,000	0.118	3,403	0.06	4,683,000	0.101	4,730	0.06	2,078,000	0.099	2,057
0.07	2,267,000	0.132	2,992	0.07	3,508,000	0.114	3,999	0.07	1,442,000	0.115	1,658
0.08	1,817,000	0.147	2,671	0.08	2,798,000	0.124	3,470	0.08	1,203,000	0.123	1,480
0.09	1,434,000	0.163	2,337	0.09	2,290,000	0.132	3,023	0.09	1,027,000	0.129	1,325
0.1	1,177,000	0.179	2,107	0.1	1,918,000	0.14	2,685	0.1	898,000	0.134	1,203
0.11	1,001,000	0.192	1,922	0.11	1,247,000	0.16	1,995	0.11	536,000	0.157	842
0.12	840,000	0.206	1,730	0.12	1,058,000	0.168	1,777	0.12	467,000	0.163	761
0.13	717,000	0.221	1,585	0.13	880,000	0.177	1,558	0.13	352,000	0.176	620
0.14	632,000	0.232	1,466	0.14	731,000	0.186	1,360	0.14	271,000	0.188	509
0.15	561,000	0.243	1,363	0.15	591,000	0.196	1,158	0.15	244,000	0.193	471
0.16	496,000	0.255	1,265	0.16	472,000	0.206	972	0.16	206,000	0.201	414
0.17	430,000	0.269	1,157	0.17	387,000	0.215	832	0.17	174,000	0.207	360
0.18	391,000	0.278	1,087	0.18	313,000	0.225	704	0.18	111,000	0.225	250
0.19	357,000	0.287	1,025	0.19	245,000	0.236	578	0.19	75,000	0.246	185
0.2	322,000	0.297	956	0.2	193,000	0.248	479	0.2	68,000	0.251	171

In the Lease Granite at the Groenfontein target, a Measured + Indicated Mineral Resource of 3 095 000 tonnes, containing 4 792 tonnes tin (at 0.1% Sn cut-off) has been estimated, at an average grade of 0.15% Sn. A further 898 000 tonnes is estimated in the Inferred Mineral Resource category, at an average grade of 0.13% Sn. A preferred cut-off of 0.1% Sn has been selected by benchmarking the project against similar tin projects elsewhere in the world, and by estimating the in situ value of ore based on a three year average tin price. However, there may be upside to the Mineral Resource base if the tin price remains high, which may allow a lower cut-off grade to be applied. Locally, drilling has intersected relatively high-grade mineralisation with grades reaching up to 0.46% Sn over 11m, and 0.41% Sn over 16m.

No economic study of the project has yet been undertaken. The Mineral Resource that has been defined crops out at surface and occurs at shallow depth. The stripping ratio and mining costs would therefore be relatively low.

Examination of the tin market indicates that the tin price is currently at an all-time high. Forecasts of the tin price all suggest that the price is likely to increase further in the short term, before levelling off and falling slightly in the medium term.



Because this project is situated in South Africa, it would be subject to exchange risk as the Rand / US Dollar exchange rate fluctuates. Operating costs would be in Rands, but the sales revenue for tin produced would be based on an international pricing model. Also, the deposit that has been defined is relatively small and low grade. This provides little margin should negative factors impact a future mine.

It is recommended that a scoping study is undertaken on the Mineral Resource to determine whether a proportion of the Mineral Resources can be mined economically. A preliminary metallurgical study should be undertaken to establish the grain size of the cassiterite and its recoverability.



## **2 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Scope of Work**

The MSA Group (MSA) has been commissioned by Greenhills Resources Ltd (Greenhills) to provide an independent competent person's report (CPR) on the Mokopane Tin Project in the Limpopo Province of South Africa. This report is intended to comply with standards set forth by the Joint Ore Reserves Committee of the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists, and Mineral Council of Australia, in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code).

### **2.2 Principal Sources of Information**

Tin mining in the vicinity of the Mokopane Tin Project commenced in 1906 and most recently ended in about 1990 as a result of depressed tin prices at that time. A significant volume of both published and unpublished scientific and commercial information has been produced on mines in the area and MSA believes that a representative and relevant proportion of this information has been collated for use in the preparation of the report. The documents used in this review are listed in section 17 of the report.

### **2.3 Qualifications, Experience and Independence**

MSA is an exploration and resource consulting and contracting firm which has been providing services and advice to the international mineral industry and financial institutions since 1983. This CPR has been compiled by Dr Leon Liebenberg and Mr Michael Lynn. The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dr Leon Liebenberg, who is a registered Member of the South African Council for Natural Scientific Professions (SACNASP), a Recognised Overseas Professional Organisation included in a list promulgated by the ASX from time to time. His registration number is 401139/83.

Dr Liebenberg is a professional geologist with 43 years' industry experience with a number of multinational mining and exploration companies and in a variety of commodities. He worked at the Zaaiploots Tin Mine for a short period early in his career and has worked on tin projects in South Africa and elsewhere. He is an Associate Consulting Geologist with MSA, a registered professional scientist with the South African Council for Natural Scientific Professions (SACNASP), a Member of the Geological Society of South Africa (MGSSA) and the Society of Economic Geologists (MSEG). Dr Liebenberg has the appropriate relevant qualifications, experience, competence and independence to act as a 'competent person' as that term is defined in the JORC Code.

Mr Lynn is a professional geologist with 25 years' experience, primarily in the exploration for and evaluation of mineral deposits in Southern, Central, West and East Africa and India. This includes work on tin-tantalum granites and pegmatites in the Democratic



Republic of Congo. He is a member of the Geological Societies of South Africa and India, and of the Society of Economic Geologists. He is registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (400148/11). His contributions to this CPR have been signed off by Dr Liebenberg.

The Mineral Resource work has been reviewed by Mr Michael Hall. Mr Hall is a resource geologist with over 30 years' experience in multi-commodity mineral exploration and resource management. He is Principal Consultant, Mineral Resources, with MSA, a registered professional scientist with South African Council for Natural Scientific Professions (SACNASP), and a Member of the Geological Society of South Africa (MGSSA) and the Australian Institute of Mining and Metallurgy (AIMM). Mr Hall has the appropriate relevant qualifications, experience, competence and independence to act as a 'competent person' as that term is defined in the JORC Code.

Peer review has been undertaken by Mr Robert Croll, who is a professional mining engineer and a Qualified Valuator as that term is defined by the Special Committee Of The Canadian Institute Of Mining, Metallurgy and Petroleum on Valuation of Mineral Properties (CIMVAL), with over 35 years' experience in mining and valuation of mineral projects within Africa and elsewhere internationally. Mr Croll is a Fellow of the South African Institute of Mining and Metallurgy.

Neither MSA, nor the authors of this CPR, have or have had previously, any material interest in Greenhills or the mineral properties in which Greenhills has an interest. Our relationship with Greenhills is solely one of professional association between client and independent consultant. This CPR is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this CPR.

## **2.4 Current Personal Inspection**

A site visit was made on 11 April 2011 to the Mokopane Tin Project by Dr. Leon Liebenberg DSc MSc Pr.Sci.Nat, a 'competent person' as that term is defined in the JORC Code, and Mr Mike Lynn MSc of MSA, accompanied by Professors Morris and Richard Viljoen, representatives of Greenhills, and also 'competent persons'. A visit was made to the historical marked drill locations and current verification drilling activities on the property, and to the core store situated in the nearby town of Mokopane.

## **3 RELIANCE ON OTHER EXPERTS**

The information and conclusions contained in this CPR are based on information available to MSA at the time of preparation of the report. MSA assumed that all of the information and technical documents reviewed and listed in the "References" are accurate and complete in all material aspects. While MSA carefully reviewed all of this information,



MSA has not concluded any extensive independent investigation to verify their accuracy and completeness. The Mineral Resource was independently estimated by Mr Dexter Ferreira of IRES.

Greenhills has warranted that a full disclosure of all material information in its possession or control has been made to MSA. Greenhills has agreed that neither it nor its associates will make any claim against MSA to recover any loss or damage suffered as a result of MSA's reliance upon the information provided by Greenhills for use in preparation of this report. Greenhills has also indemnified MSA against any claim arising out of the assignment to prepare this report, except where the claim arises as a result of proved wilful misconduct or negligence on the part of MSA. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising from MSA's performance of the engagement.

Greenhills has reviewed draft copies of this report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.

MSA reserves the right to, but will not be obligated to, revise this report and conclusions thereto if additional information becomes known to MSA subsequent to the date of this report.

## **4 PROPERTY DESCRIPTION AND LOCATION**

MSA has obtained a copy of Prospecting Right (PR) LP 2205 PR with protocol reference 47/2010, issued by the Department of Minerals and Energy (DME) in the name of VM Investment Company (Pty) Ltd (VMIC), as evidence that the licence is valid and in good standing. However, MSA has not independently verified the legal status of this license, nor is it qualified to do so. The present status of tenements listed in this report is based on information and copies of documents provided by Greenhills, and the report has been prepared on the assumption that the licenses are lawfully accessible for evaluation. The license is valid for a period of five years, from 14 July 2010 to 13 July 2015, and grants exclusive prospecting rights to the holder. The PR gives VMIC the right to explore for tin, rare earth metals, fluor spar, molybdenum, gold, arsenic, uranium, zirconium, iron ore and zinc.

### **4.1 Area and Demarcation of Property**

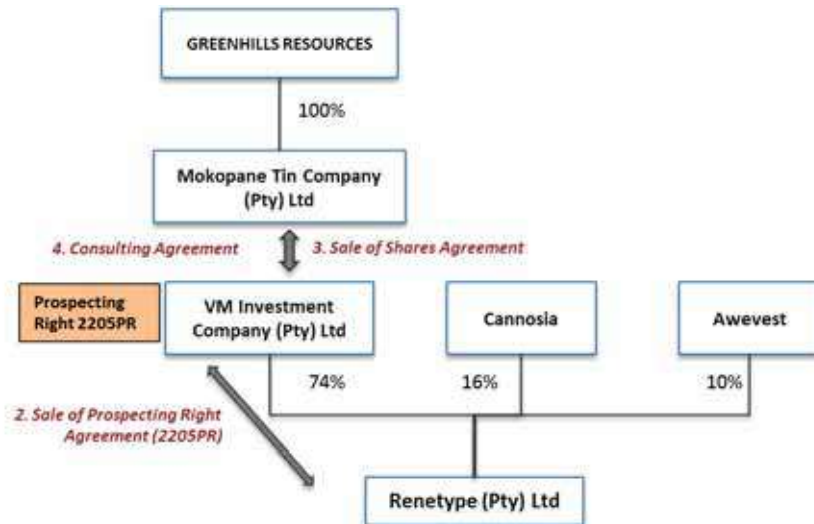
The area of the PR is defined by farm boundaries. The PR comprises the farms Groendoorn 225 KR (excluding Portion 05), Groenfontein 227 KR (excluding Portion 25), Sterkwater 229 KR, Salomon's temple 230 KR, Roodepoort 222 KR and Zaaiplaats 223



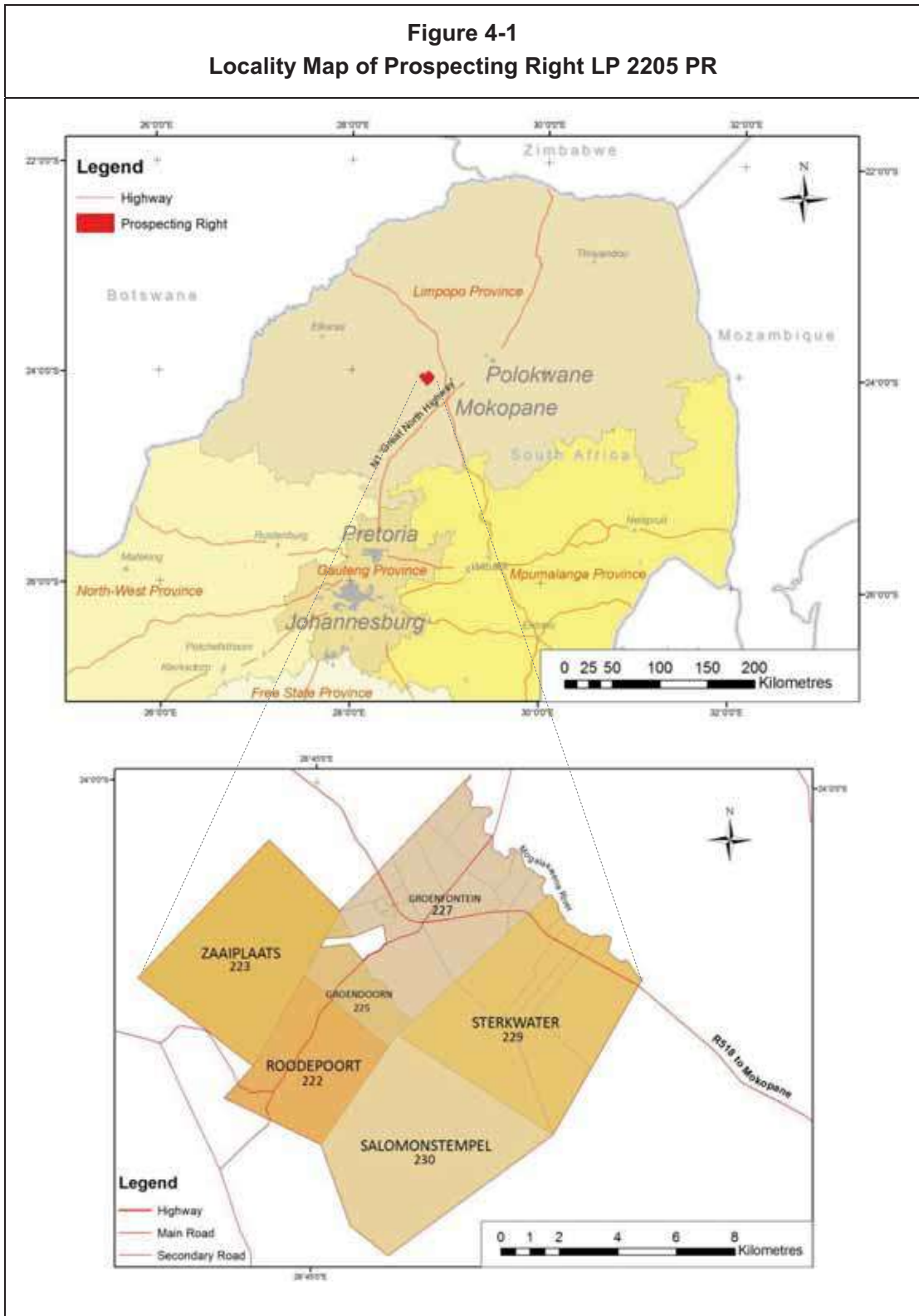
KR. According to the PR, the property totals 13 421.7362 ha. A locality map and map of the property as defined by the description in the Prospecting Right is shown in Figure 4-1.

## 4.2 Shareholding

In terms of an agreement with the DME, provision needs to be made to incorporate Black Economic Empowerment (BEE) partners in the project. This provision is being fulfilled through a transfer to Renetype (Pty) Ltd, which was set up for the specific purpose of developing the prospecting right 2205 PR, and in which 26% of the shares are held by BEE companies. VMIC is a 74% shareholder of Renetype. This shareholding will be transferred to a subsidiary of Greenhills Resources Limited (Greenhills), called Mokopane Tin Company, in terms of a Sale of Shares Agreement between VMIC and Mokopane Tin Company (Pty) Ltd.



**Figure 4-1**  
**Locality Map of Prospecting Right LP 2205 PR**



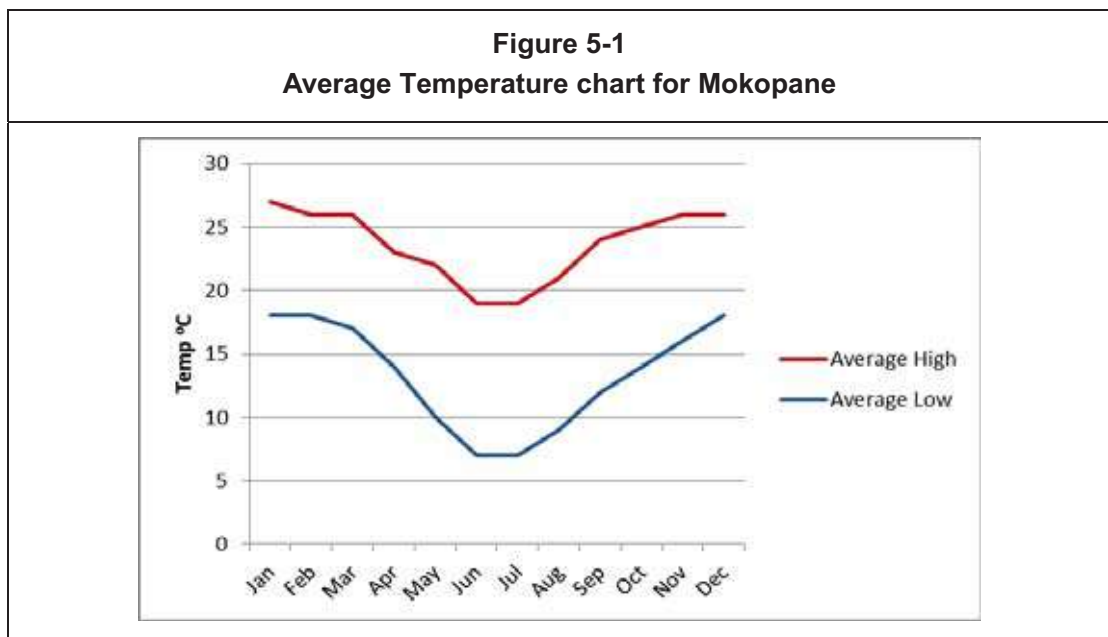
## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Access

Access to the property is via the N1 motorway from Johannesburg to Mokopane (formerly Potgietersrus), and then via the R518 tarred secondary road which passes through the property (Figure 4-1). The journey time is approximately three-and-a-half hours by car. Jeep tracks provide access to various parts of the property and most of these are not suitable for normal 2WD road vehicles. There is a cellular phone signal for the major networks.

### 5.2 Climate

Mokopane experiences a semi-arid climate with hot to very hot summer months. Average rainfall is 350-400 mm and mostly occurs as afternoon thunderstorms during the months from November to March. Winter months are generally cool to warm and sunny during the day with temperatures dropping considerably in the evenings (Figure 5-1).



### 5.3 Physiography

The property is hilly with elevation ranging between 1 565 m in the southern ridges, and 990 m in the valley of the Mogolakwa River at the northern tip of the property. The hills are formed by the resistive granophyre that forms the roof of the mineralised Bobbejaankop and Lease Granites.



#### **5.4 Local Resources and Infrastructure**

Mining services and human resources are available in Mokopane and surrounding areas, which have a long history of mining, being situated within the Bushveld Complex. There are nearby operating platinum, chrome and gold mines. Drilling contractors, services and consultants are available in Johannesburg and the greater Gauteng area.

The region is served by major existing power infrastructure. The 765 kV Matimba-Witkop power line passes 25 km north of the property. In addition, further infrastructure is in development to transmit power from the Matimba power station (situated some 120 km to the northwest of the property) to accommodate the increased demand in the Mokopane area, to satisfy the platinum mining industry. Various options are under review, and one of these options passes within 5 km of the property (Diamond, 2008).

Water availability may be limited due to the semi-arid environment. However, the old underground mine workings are flooded, and the property is flanked by the Mogolakwena and Sterk Rivers. It is therefore probable that sufficient process water could be sourced locally.

## 6 DEPOSIT TYPE

The principal tin deposits of the world occur in association with evolved calc-alkaline granites emplaced late in orogenic cycles (also termed post-kinematic or anorogenic granites). These 'tin granites' commonly occur in composite batholiths in old continental mobile zones. The granites associated with tin deposits are the most highly evolved and the latest intrusion in the composite batholith. They tend to be discordant to bedding, regional structure, regional metamorphic isograds and older foliated granites.

### Geochemistry

Tin granites have a number of geochemical features in common, which helps distinguish them from unmineralised granites. They are generally enriched in:  $\text{SiO}_2$ , alkalis, fluorine (F), lithium (Li), boron (B), beryllium (Be), tin (Sn), tantalum (Ta), niobium (Nb), rubidium (Rb), gallium (Ga), yttrium (Y), light rare earth elements (REE), uranium (U), thorium (Th), tungsten (W) and lead (Pb). They are generally depleted in:  $\text{TiO}_2$ ,  $\text{Al}_2\text{O}_3$ , MgO, CaO,  $\text{H}_2\text{O}$ ,  $\text{P}_2\text{O}_5$  strontium (Sr), barium (Ba), cobalt (Co), nickel (Ni) and europium (Eu) when compared to associated unmineralised granites. This enrichment and depletion is related to proximity to the upper contact of the batholith and is enhanced in upward projections of the batholith into the surrounding and overlying country rocks. The source granite rocks for tin deposits are characterised by an enrichment in the most incompatible large-ion lithophile elements (such as U, Th and Rb), large, highly charged ions (such as  $\text{Sn}^{4+}$ ,  $\text{W}^{6+}$  and  $\text{U}^{4+}$ ) and small ions (such as  $\text{Li}^+$ ,  $\text{Be}^{2+}$  and  $\text{B}^{3+}$ ).

Tin granites are the final product of fractionation derived from a source rock enriched in silica (Si) and potassium (K).

### Mineralogy

Tin granites are usually multiphase intrusions. The most commonly recognised early phase is a porphyritic granite characterised by large quartz and K-feldspar phenocrysts in a finer grained groundmass. This type of granite commonly grades into a more seriate textured granite from the outside of the intrusion, inwards.

Tin granites usually contain abundant large (often pinkish) potassium (K) feldspar crystals with a perthitic texture, in a groundmass of K feldspar, quartz and zoned plagioclase (with sodic rims) and biotite. Accessory minerals include muscovite, tourmaline, fluorite, F-apatite, ilmenite, topaz, monazite, zircon, xenotime, andalusite and cordierite.

### 6.1 Tin Mineral Resources

Examples of current tin projects around the world are shown in Table 6-1.

**Table 6-1  
Current Tin Projects**

<b>Project</b>	<b>Country</b>	<b>Measured plus Indicated Resources (Mt)</b>	<b>Inferred Resources (Mt)</b>	<b>Cut-off (% Sn)</b>	<b>Avg Grade (% Sn)</b>	<b>Contained Sn (t)</b>	<b>Depth</b>
Heemskirk	Australia	1.8	5.5	0.1%	0.60%	33 000	Shallow
Achmmach	Morocco	-	7.0	0.5%	0.80%	56 000t	Underground
Oropesa	Spain	-	7.0	0.2%	0.64%	44 800	Shallow
Doradillo	Spain	-	7.81	0.1%	0.25%	22 300t	Shallow
Godfrey	Australia	-	2.8	-	0.42%	11 760	Underground

## 7 GEOLOGICAL SETTING

### 7.1 Regional Geology

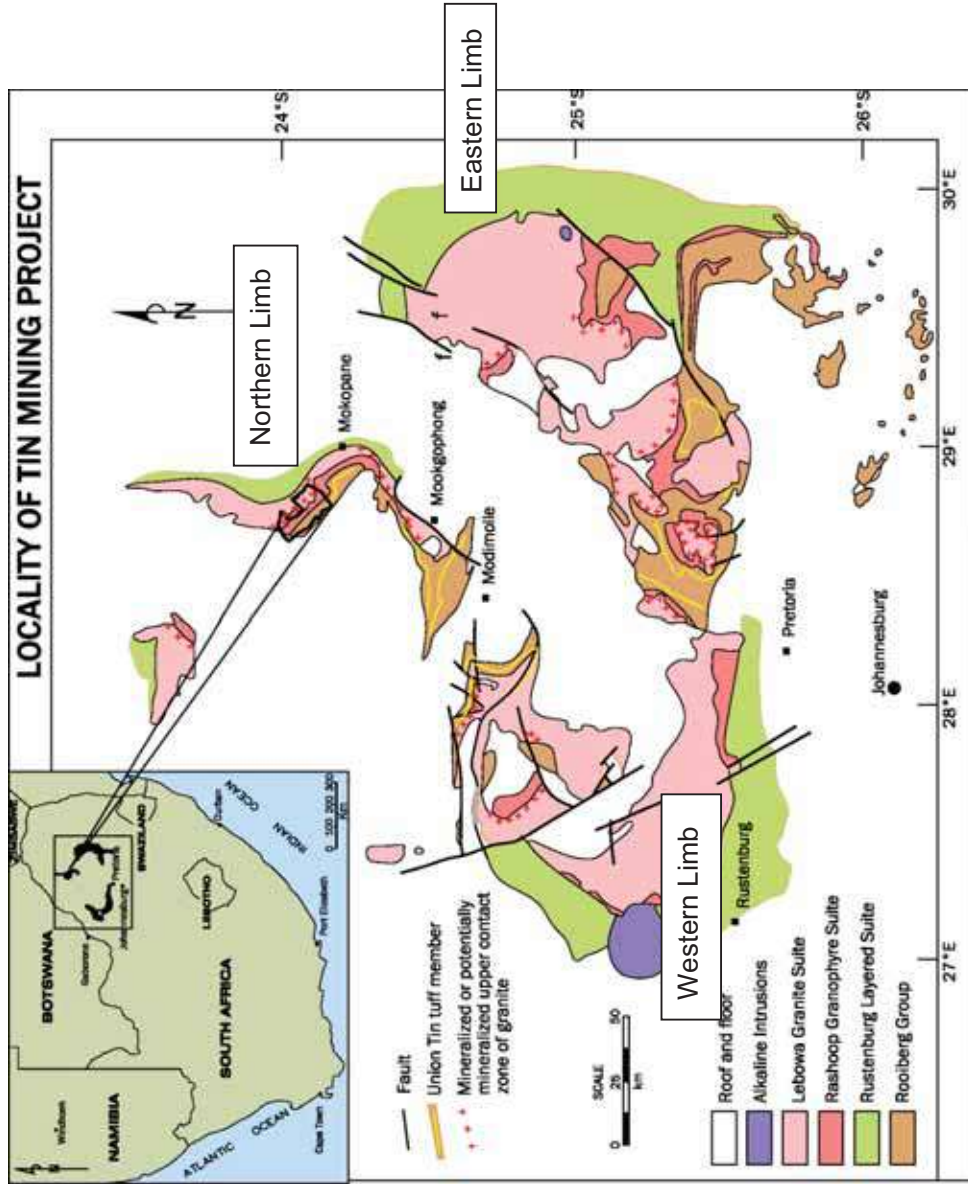
The Bushveld Complex ("BC"; 2.06 Ga) in South Africa is the largest layered intrusion in the world. It covers an area of 65 000 km<sup>2</sup> and comprises a mafic sequence, the Rustenburg Layered Suite ("RLS"), overlain by the felsic rocks of the Lebowa Granite Suite. The BC is geographically divided into a Western Limb, Eastern Limb, and Northern Limb (Figure 7-1). The Mokopane project is situated on the granitic rocks of the Northern Limb.

The granites of the Lebowa Granite Suite in the Northern Limb of the BC comprise a thick, sheet-like composite pluton dipping gently towards the west and southwest. The granite sheet separates the mafic rocks of the RLS below, from their original roof of felsites of the Rooiberg Group (Figure 7-1).

Two distinct suites of granitic rocks occur: the older unit is the Rashedoep Granophyre Suite which predates the mafic rocks of the RLS, and the younger unit is the Lebowa Granite Suite which post-dates the RLS. The granite lies below the granophyre and mineralisation is restricted to the uppermost portion of the granites.

The Lebowa Granite Suite is overlain to the west by sedimentary rocks of the Waterberg Group (circa 2.0 Ga).

Figure 7-1  
Regional geological map





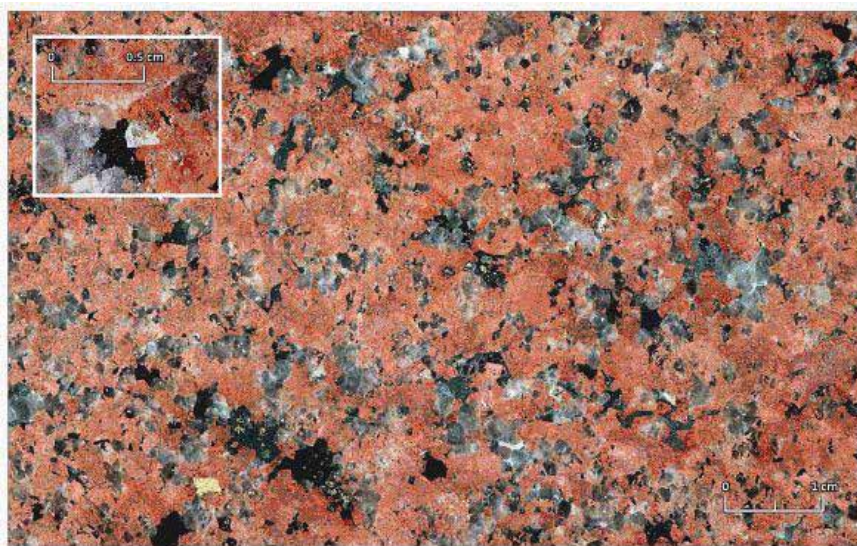
## 7.2 Local and Property Geology

Three major types of granite occur within the Lebowa Granite Suite: the Nebo, Bobbejaankop, and Lease Granites. The Nebo (or Main) Granite is a coarse-grained rock composed of quartz and perthite with lesser amounts of sodic plagioclase, hornblende and biotite.

The Bobbejaankop Granite (Figure 7-2) is a hydrothermally altered facies equivalent of the Nebo Granite. On a regional scale, it usually occurs in the upper part of the sheetlike Nebo Granite pluton. The Bobbejaankop Granite is host to the disseminated cassiterite mineralisation on the farm Zaaipplaats 223KR, and it also contains high-grade pipes of hydrothermal origin, that cross-cut the disseminated deposits. The Bobbejaankop Granite is confined to the uppermost part of the composite pluton and shows gradational contacts with the underlying Nebo Granite. It is a medium- to coarse-grained deep red rock with a distinctive texture composed of linked chains of quartz.

**Figure 7-2**  
**Bobbejaankop Granite**

The rock is hydrothermally altered and is composed of complex K-feldspar-albite intergrowths (red) and quartz (grey/white), with minor dark biotite which has largely been altered to chlorite. The dark areas are cavities filled with hydrothermal minerals including cassiterite, scheelite, sericite, and fluorite.

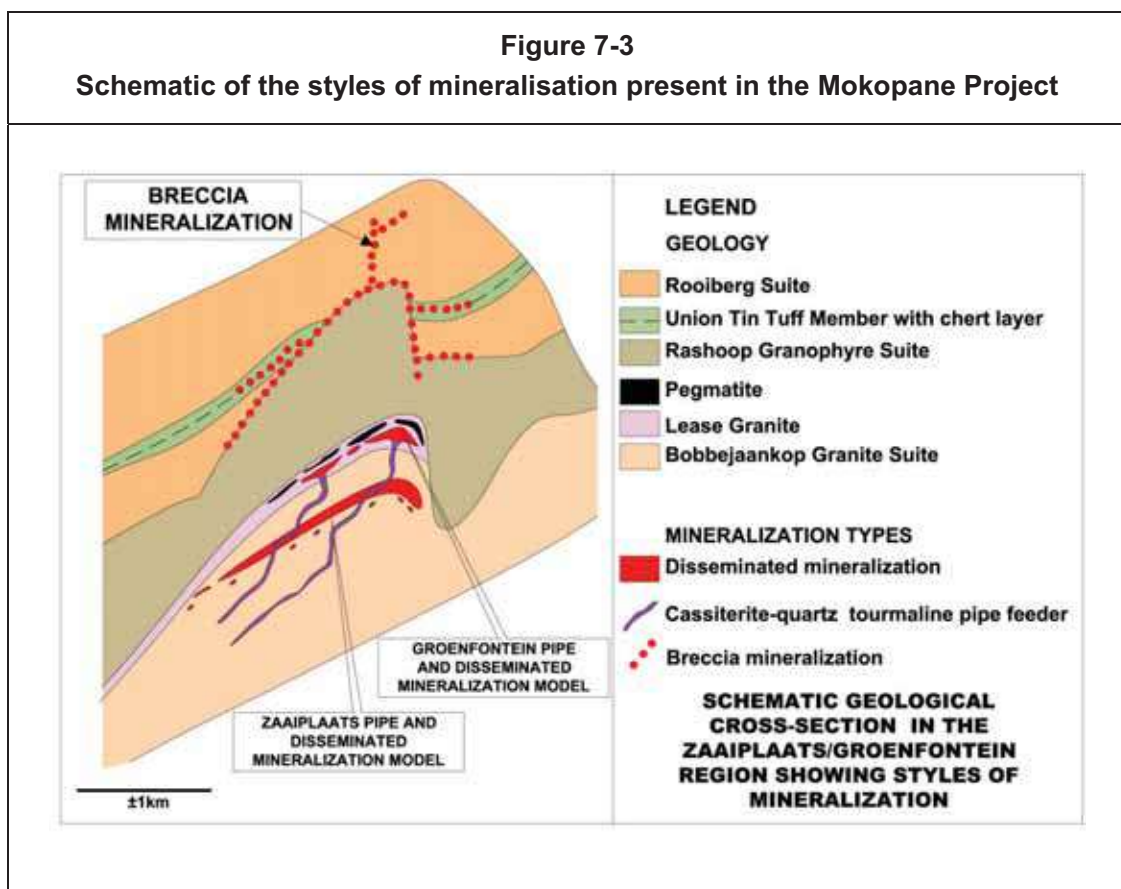


The Lease Granite is a fine-grained aplite that forms a thin (up to 120 m) but continuous hood facies to the Bobbejaankop Granite. The contact between the Bobbejaankop and

Lease Granites may be sharp or gradational. The contact between the Lease Granite and the overlying Rashoop Granophyre Suite is always sharp and marked by a coarse quartz-feldspar pegmatite. The high-grade pipe orebodies may penetrate into the Lease Granite, but do not penetrate into the older, overlying granophyre.

### 7.2.1 Styles of Mineralisation

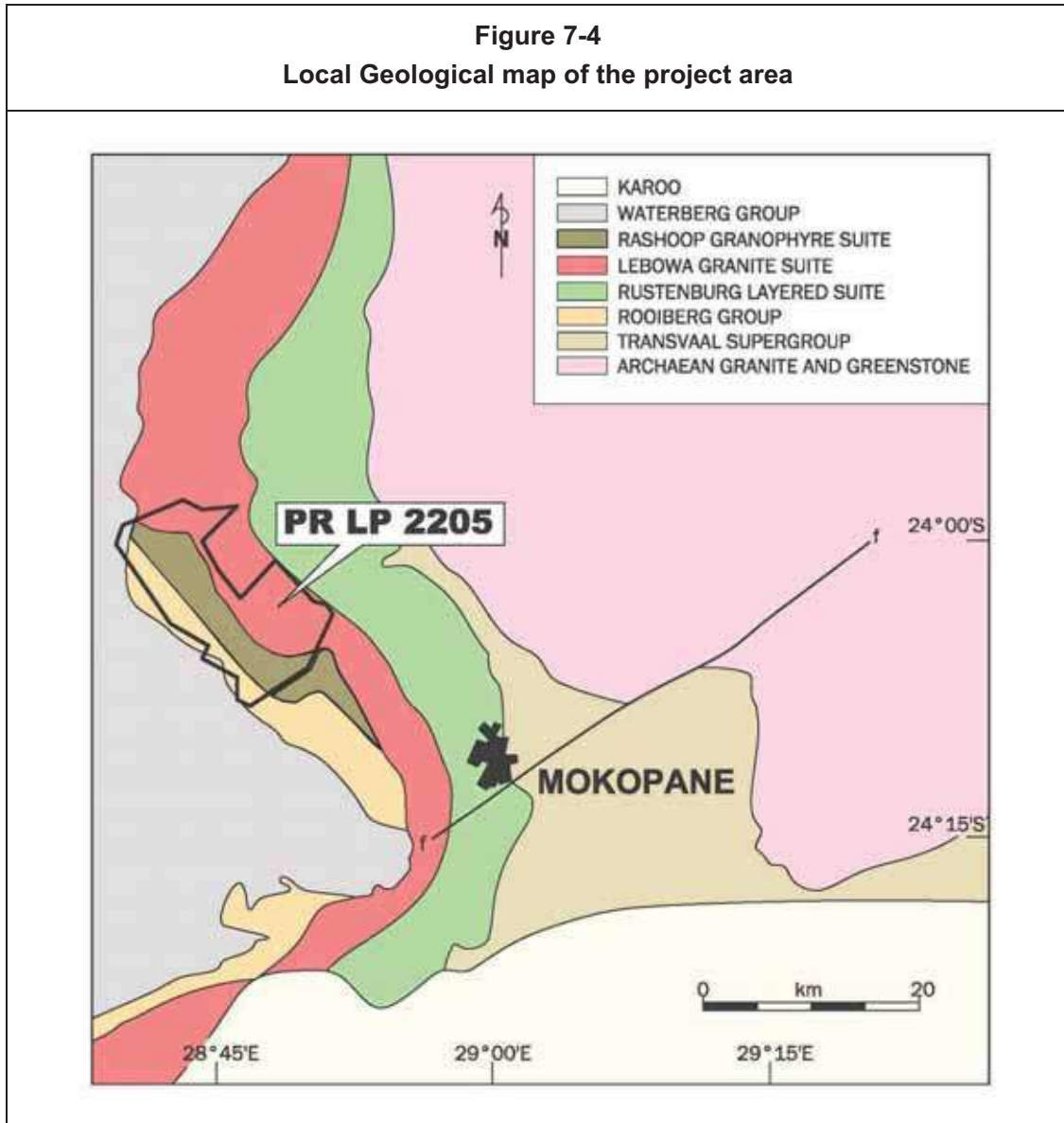
Tin mineralisation is restricted to the Lease and Bobbejaankop Granites where it occurs in pipe-like bodies, sub-horizontal lenticular bodies and as a sub-horizontal disseminated low grade bodies within both granites. All tin mineralisation is in the form of cassiterite ( $\text{SnO}_2$ ) and is of endogenic and syngenetic origin within the granites (Figure 7-3).



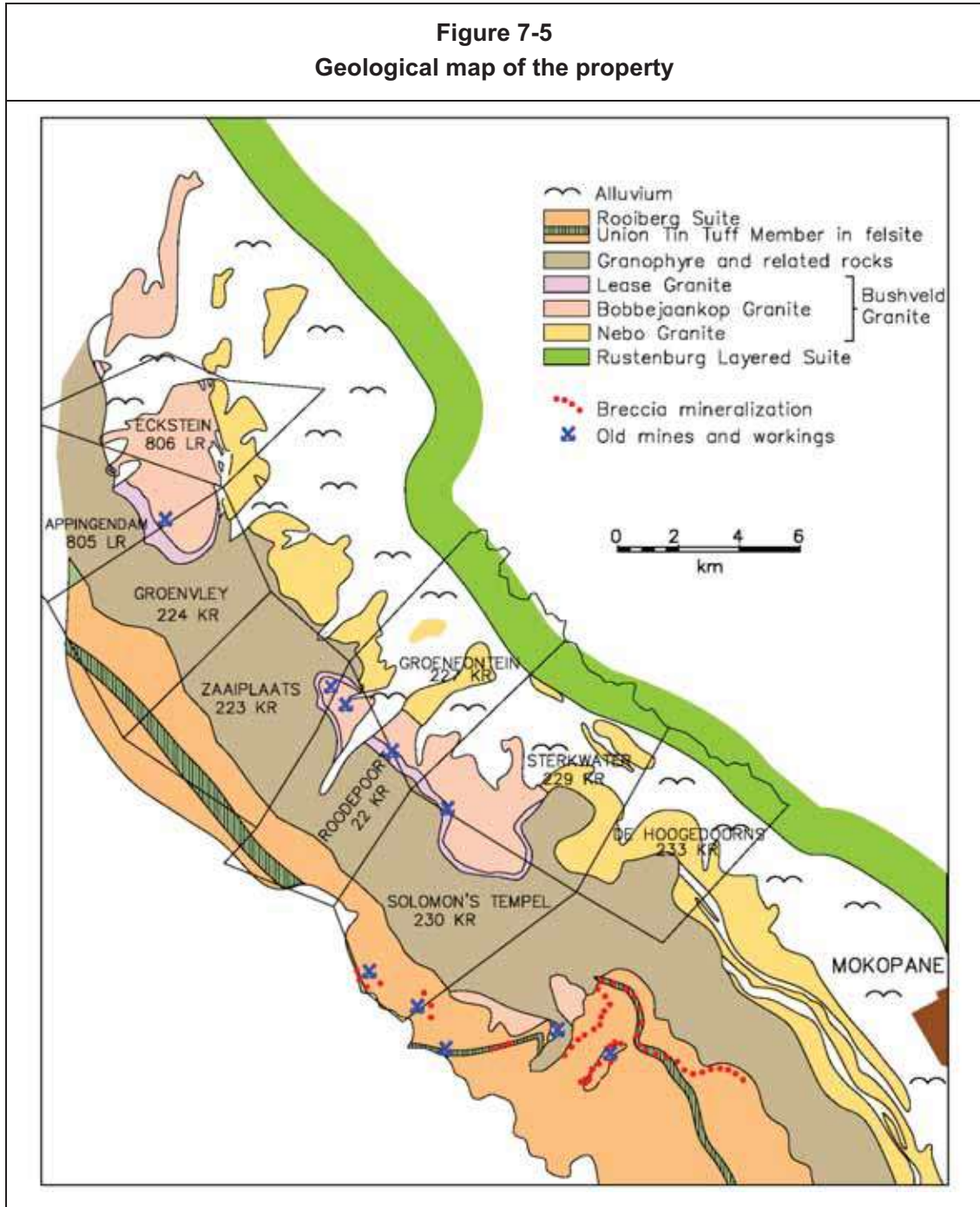
Pipe-like bodies are prominent in the Lease Granite but also occur in the Bobbejaankop granite on Zaaiplaats 223KR. The cassiterite concentration is up to 70% with an average of between 12% and 30%. These are restricted, bodies, roughly circular in cross-section with diameters varying from a few centimetres up to 12 m and lengths from a few metres up to 1 200 m. The attitude varies from horizontal to vertical.

Lenticular ore bodies occur in the Lease Granite immediately below the pegmatite zone and appear to be the product of “bubbles” of tin bearing fluids which were trapped beneath the impermeable pegmatite. These were the main source of ore at the Groenfontein Mine.

Alluvial deposits existed in the past but have largely been mined out. They do not constitute a target for the current programme. Figure 7-4 shows the local geology in the area of the project and Figure 7-5 is a geological map of the property.



**Figure 7-5**  
**Geological map of the property**



## 8 HISTORY

### 8.1 Mining History

Cassiterite was discovered in 1905 by prospectors on the farms Roodepoort 222KR, Groenfontein 227 KR and Zaaiplaats 223KR. This led to the establishment of the Groenfontein Tin Mine and the Zaaiplaats Tin Mining Company. Subsequently, further tin deposits were discovered on adjacent farms, including Salomon's Temple 230KR. The Zaaiplaats Tin Mining Company produced cassiterite concentrate and tin metal continuously from its inception to its closure in 1989. Table 8-1 summarises production from the area.

<b>Table 8-1</b>			
<b>Total tin production from the Mokopane Tin Field (source: Crocker, 1986)</b>			
Farm properties highlighted in light green are included in the Greenhills property, whilst those highlighted in pink, are not.			
Farm Property	Part of LP2205 PR	Concentrate (t)	Tin Metal (t)
Zaaiplaats 223KR	Yes	25 929	17 300
Groenfontein 227KR	Yes	6 395	4 463
Roodepoort 222KR	Yes		
Salomon's Temple 230KR	Yes	116	48
Waterval 250KR	No	235	125
Welgevonden 232 KR	No		
Groenvley 224KR	No	19	12
Appingendam 805LR	No		
<b>Total</b>		<b>32 694</b>	<b>21 948</b>

Mineral resource drilling of the disseminated cassiterite deposit on the farm Groenfontein 227KR was undertaken during the 1970s. This work is the focus of current redrilling, to try to establish a JORC compliant Mineral Resource.

### 8.2 Exploration History

In 1962 a targeting exercise was conducted by Transvaal Consolidated Lands (TCL) which identified the Roodepoort 222KR and Groenfontein 227KR as targets for further exploration (Kriel, 1962). The report identified four types of mineralisation, viz;

- Pipe-like bodies: The pipe like ore-bodies in the Lease Granite or Bobbejaankop Granite were not considered to be a major source of ore for a

large-scale operation due to their small size, irregularity and unpredictable nature.

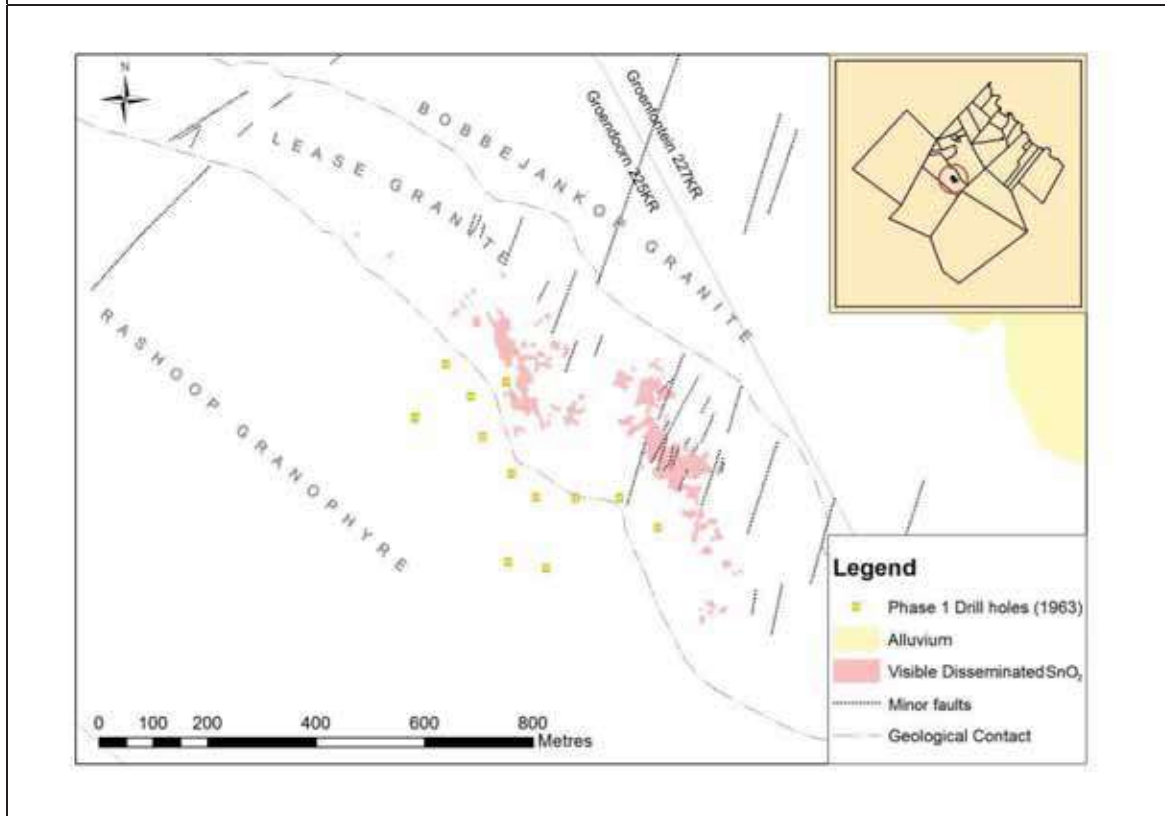
- Lenticular Ore-Bodies in Lease Granite: The lenticular orebodies in Lease Granite were not considered to be prime targets for exploration because of their unpredictable nature.
- Disseminated Cassiterite: The disseminated zones were considered to be the most attractive exploration targets because of their potential for large volumes of predictably mineralized granite. This fact was enhanced by the possibility of lenticular ore bodies being associated with areas of disseminated cassiterite within the Lease granite acting as sweeteners for any mining operation.
- Alluvial Deposits: Two alluvial targets, to the north and north east of Groenfontein Tin Mine were identified for investigation for workable alluvial tin deposits.

The major conclusion of this work was that an area of disseminated cassiterite identified in outcrop along the boundary between the farms Groenfontein 227KR and Roodepoort 222KR was an attractive target. This area has subsequently been proclaimed as a separate farm called Groendoorn 225KR (Figure 4-1).

### **8.3 Follow-up Work Programme and Mineral Resource**

A wide spaced percussion drilling programme comprising 12 boreholes was conducted in 1963 over the disseminated cassiterite target on Groendoorn 225KR. The details of the sampling and assay methodology are not available. However, the programme established an anomalous zone of tin mineralisation which was demonstrated to continue down dip beneath the Rashoop Granophyre (Figure 8-1). This programme was subsequently followed up by surface geochemical sampling in 1976, to establish whether further areas of shallow disseminated tin mineralisation occur.

**Figure 8-1**  
**Map of the surface outcrop of visible disseminated tin and Phase 1 drill holes**

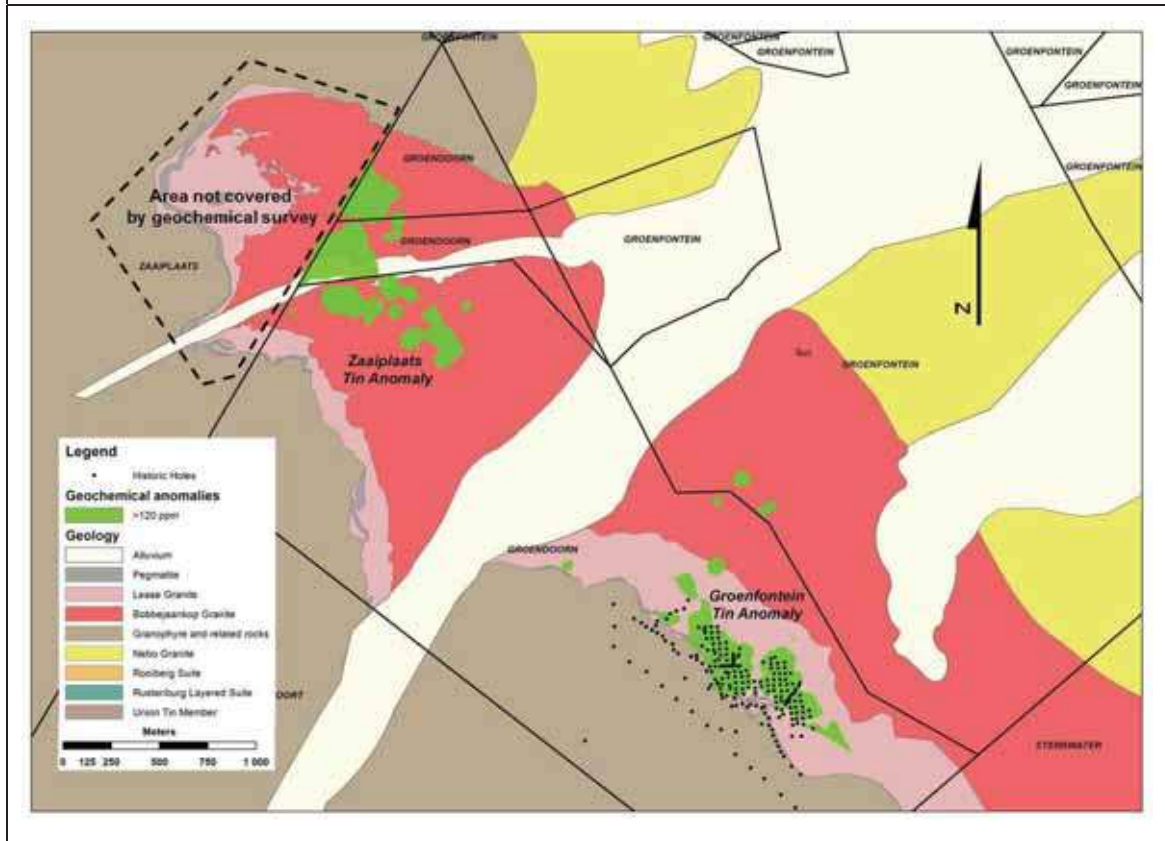


### 8.3.1 Geochemical Sampling Programme

In 1976, a detailed systematic surface sampling programme was carried out over the southern part of Groenfontein 227KR and what is now the farm Groendoorn 225KR. The entire area was sampled except the areas covered by alluvium and tailings from the Zaaiplaats Tin Mine. Granite chip samples and soil/alluvial/elluvial samples were collected, initially on a 50 m by 50 m grid and later on a 10 m by 5 m grid on some of the more interesting areas.

The results of the 50 m by 50 m grid sampling only confirmed known cassiterite occurrences which had already been identified from mapping of the disseminated tin mineralisation on surface. These were associated with disseminated tin mineralisation in the Bobbejaankop Granite, which is an extension of the mineralisation on the farm Zaaiplaats 223KR, and with the disseminated mineralisation within the Lease Granite on the farm Groendoorn 225KR (Figure 8-2). The results of the geochemical sampling programme prompted the planning and execution of a phased drilling programme during 1978, to further investigate the disseminated tin mineralisation in the Lease Granite.

**Figure 8-2**  
**Map of the two anomalies defined by the 1976 geochemical sampling programme**



### 8.3.2 1978 Drilling Programme

The drilling conducted in 1963 and 1978 is summarised in Table 8-2 and shown in Figure 8-3. All of the holes were drilled vertically.

The 1978 drilling programme was undertaken by Rand Mines Ltd and was divided into four phases (Phases 2 to 5 in Table 8-2 and Figure 8-3) carried out with the aim of investigating the economic viability of the disseminated tin deposit on the farms Roodepoort 222KR and Groenfontein 227KR in an area that is today on the farm Groendoorn 225KR. The programme background, implementation and results were assessed and reported on by I.M. Clementson in February 1979.

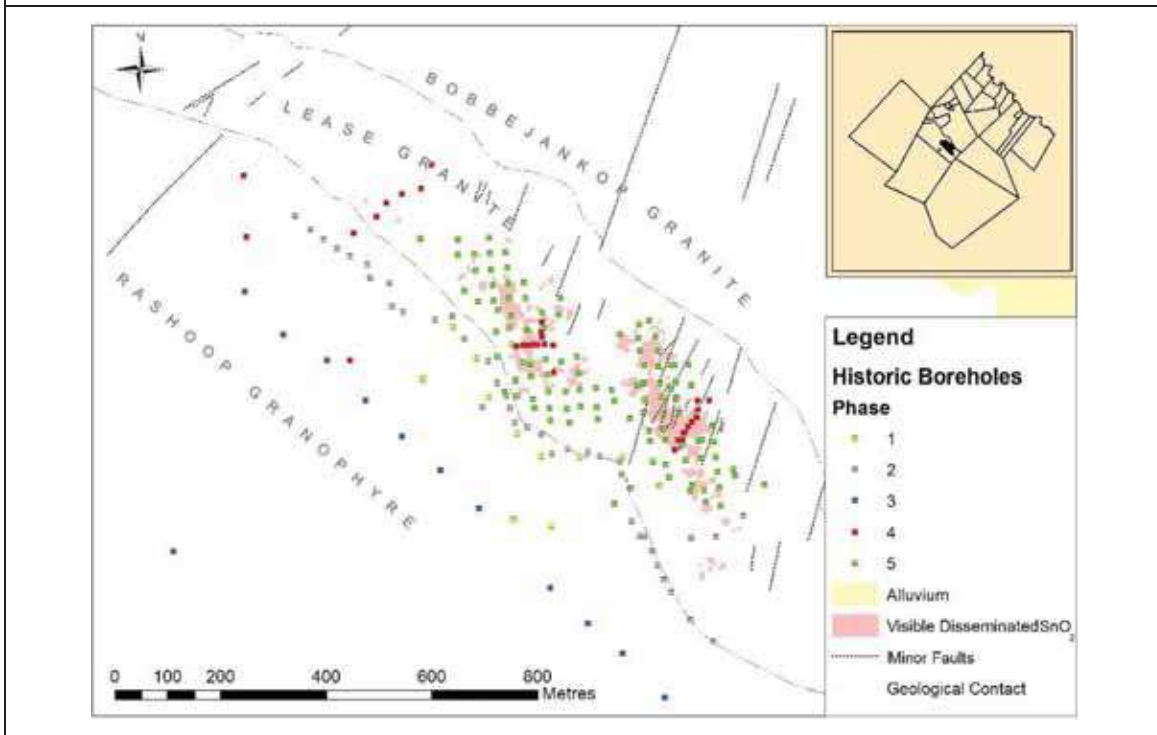


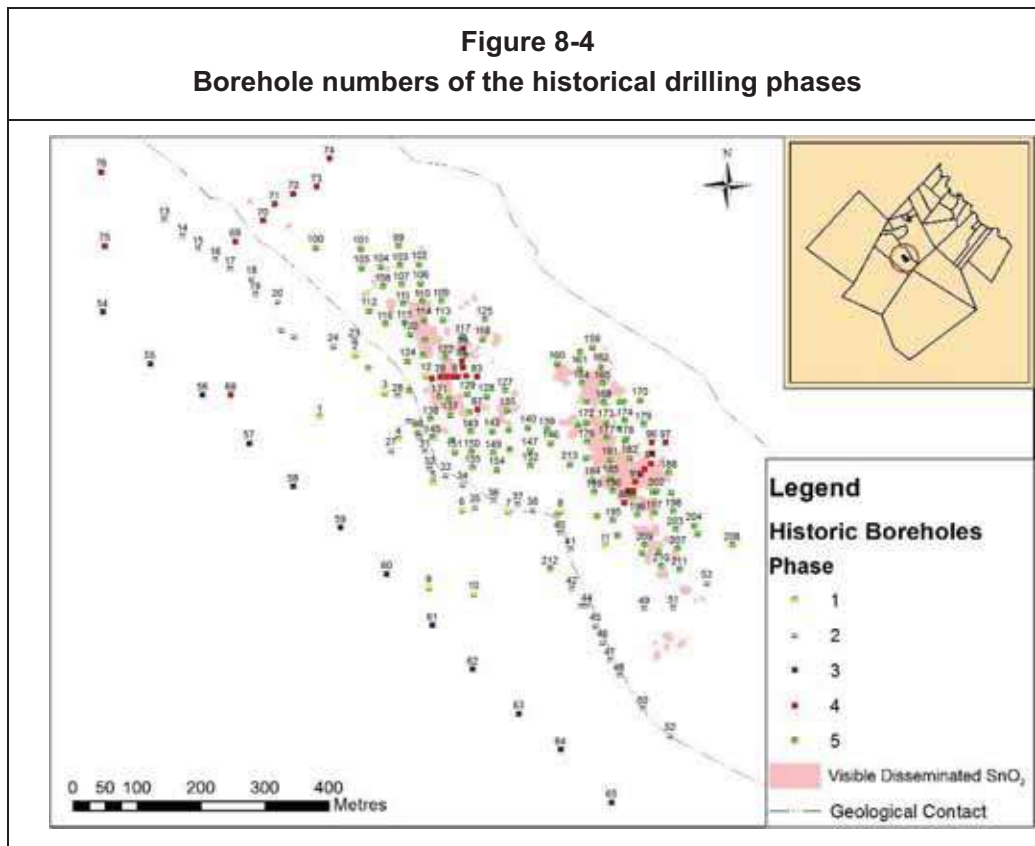
**Table 8-2**  
**Summary of historical drilling on the property**

Phase Hole Nos.	Objective	Number of Holes	Total Metres	Average Hole Depth (m)	Drilling Type	Year
1 RDP 1-12	To investigate outcropping disseminated Sn mineralisation on the farm Groendoorn 225KR	12	1400.91	116.74	Percussion /Core	1963
2* RDP 13-53	To investigate the down dip extension of the tabular tin mineralisation identified in Phase 1	40	2356.36	58.91	Percussion /Core	1978
3 RDP 54-67	To investigate the down dip extension of the tabular tin mineralisation identified in Phase 2	14	2007.08	143.36	Percussion /Core	1978
4 RDP 68-97	To confirm the directional trend of mineralisation	30	1131.76	37.73	Percussion	1978
5** RDP 98-213	To develop a "reserve" in the shallow disseminated Sn mineralisation	107	1396.00	13.05	Percussion	1978
	<b>Total</b>	<b>203</b>	<b>8292.11</b>	<b>40.85</b>		

\* one hole not drilled, \*\* 9 holes not drilled

**Figure 8-3**  
**Map of the five drilling phases drilled in 1963 and 1978 on the Lease Granite target**





Phase 2 of drilling (RDP 13 to 53) was a line of diamond holes alternating with percussion holes drilled above the contact of the Lease Granite with its roof of Rashoop Granophyre, roughly parallel to the Granophyre-Lease Granite contact, to investigate the down-dip extension of the mineralisation in the Lease Granite. The holes were placed at 30 m intervals and BX sized core was recovered. The diamond holes were drilled to about 40 m below the upper contact of the Lease Granite which is defined by an immediately overlying pegmatite zone. Previous knowledge revealed that mineralisation is restricted to a zone about 30 m thick at the top of the Lease Granite. The core was logged and sampled from the top of the pegmatite to the end of the hole. Sampling involved splitting the core in half and sampling continuously over 1 m intervals. All of the pegmatite and the intersected portion of the Lease Granite were sampled. The unsampled half core was apparently stored at Groenfontein Tin Mine. However, the core is no longer available.

Samples were initially analysed for Sn, Cu and  $\text{CaF}_2$  but later for Sn only. There was no correlation between Sn and Cu or between Sn and  $\text{CaF}_2$ . Cu values in the pegmatite and

Lease Granite were low, averaging 44 ppm Cu. The Lease Granite contains  $\text{CaF}_2$ , the maximum recorded result being 4.4%  $\text{CaF}_2$ .

Alternate 4.5 inch (approximately 113 mm) percussion drill holes were sampled by a cyclone system or an enclosed system of catch trays over every metre drilled. The sample material was split using a riffle splitter and one half submitted for analysis while the other half was stored in the labelled bags at Groenfontein Tin Mine. Most of the holes were drilled to about 40 m below the calculated depth of the top of the Lease Granite, based on the measured dip of the contact. However, boreholes RDP49, 51 and 53 were drilled off the main line of holes, being drilled further to the east directly over the geochemical anomaly on the Lease Granite to a depth of approximately 60 m and were collared in Lease Granite. This was done to check if the mineralisation persisted at depth to the east. RDP47 was drilled to a depth of 72 m below the Granophyre- Lease contact to check the assumption that mineralisation was restricted to the upper 30 m of the Lease Granite. RDP25 was not drilled as it fell adjacent to RDP2 (drilled during the first phase of drilling in 1963). Several holes, which were sited over underground workings were repositioned as close to the original site as possible.

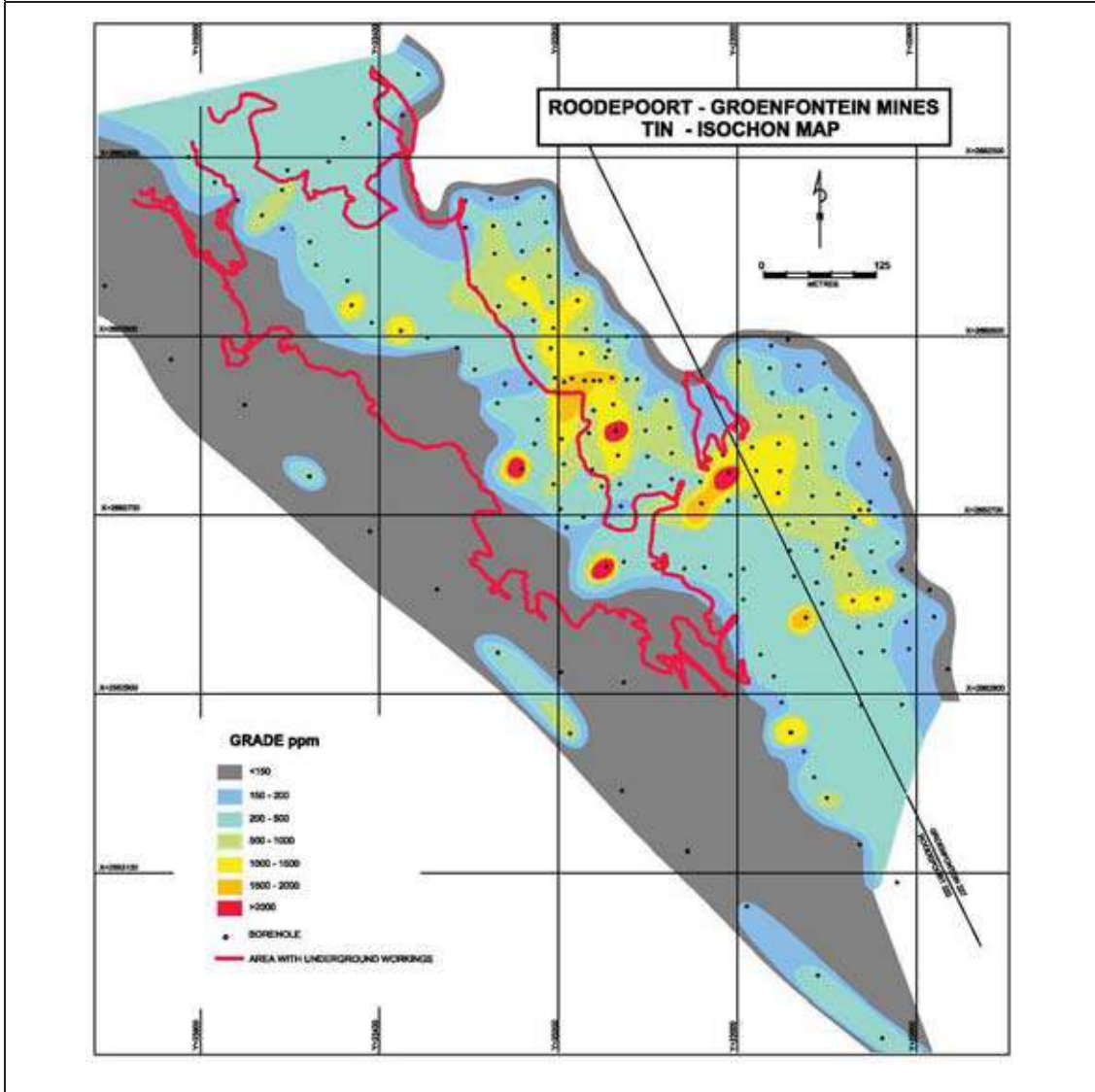
Phase 3 (RDP 54 to 67) was a second line of holes drilled 200 m further down dip to Phase 2 and to the southwest. This line of holes was planned to intersect the projected ore body further down dip from the Phase 2 holes. The holes were spaced at 100 m intervals, each hole piloted by percussion drilling to about 20 m above the Main-Lease contact, as calculated from contact intersections in Phase 1 diamond holes, then diamond drilled to about 40 m below the contact. Logging and sampling procedures were the same as in Phase 2.

The information gathered about the deposit was as follows:

- The Rashoop Granophyre-Lease Granite contact is sharp with an average dip of  $21^\circ$  to the SW.
- Phase 2, RDP 13-52, excluding 49 and 51 gave anomalous results and a correlation of tin values is possible. However values are low except for RDP 29 to 35.
- Phase 3 holes were all barren and demonstrate that any mineralisation in the Lease Granite is restricted to the surface outcrop area and only extends for a limited distance down dip.
- Pegmatite grades are variable, with RDP 16, 17 and 20 giving high tin grades associated with pegmatite.
- Boreholes RDP 23, 43 and 45 are anomalous outliers, being surrounded by barren areas. However these boreholes lie within an area of underground workings.

The results of Phases 1, 2 and 3 revealed that mineralisation in the upper fine grained Lease Granite is largely restricted to the surface outcrop area of an exposed elongate dome-like structure that only extends to a limited depth and limited distance down dip (Figure 8-5).

**Figure 8-5**  
Grade map showing the contiguous zones of anomalous tin (>500 ppm)



Phase 4 of drilling was a series of close spaced boreholes designed to check whether surface geological anomalies presumed to extend south-southwest had not been misinterpreted and actually trend northwest in Lease or Bobbejaankop Granite. RDP68 to

RDP74 were drilled at 30 to 50m intervals in a line extending northeast from RDP16 (Figure 8-4). In addition RDP77-87 and RDP 88-97 were percussion-drilled to depths of approximately 10 m over the two geochemical anomalies where disseminated cassiterite is visible in Lease Granite. RDP86 was deepened to 166.2 m in Bobbejaankop Granite to check for possible mineralisation.

Phase 4 proved that the disseminated mineralisation does not extend northwest.

The final phase of drilling, Phase 5, was a 30 m by 30 m grid pattern over the major portion of the surface geochemical anomaly. Boreholes RDP098 to RDP213 were drilled and most of them intersected significant disseminated tin mineralisation, with only four holes out of 107 not intersecting anomalous tin values (>150 ppm Sn).

### 8.3.3 Composite Drilling Results

Drilling defined an approximately 200 m wide, northwest-southeast trending zone of anomalous tin mineralisation (>200 ppm) extending for over 1 km and open ended on both ends (Figure 8-2). Within this zone is a core of mineralisation with a 500 ppm cut-off grade that extends for over 600m, and within this core are two contiguous more highly mineralised zones defined by a cut-off grade of 1000 ppm Sn. These cover a combined area of approximately 125 m x 325 m in extent and broadly correspond to the surface outcrop of the disseminated tin mineralisation.

### 8.3.4 Overburden

The mineralised tin granite is largely exposed on the surface and takes the form of a broad anticlinal structure with a north-west trend. Three limbs can be observed:

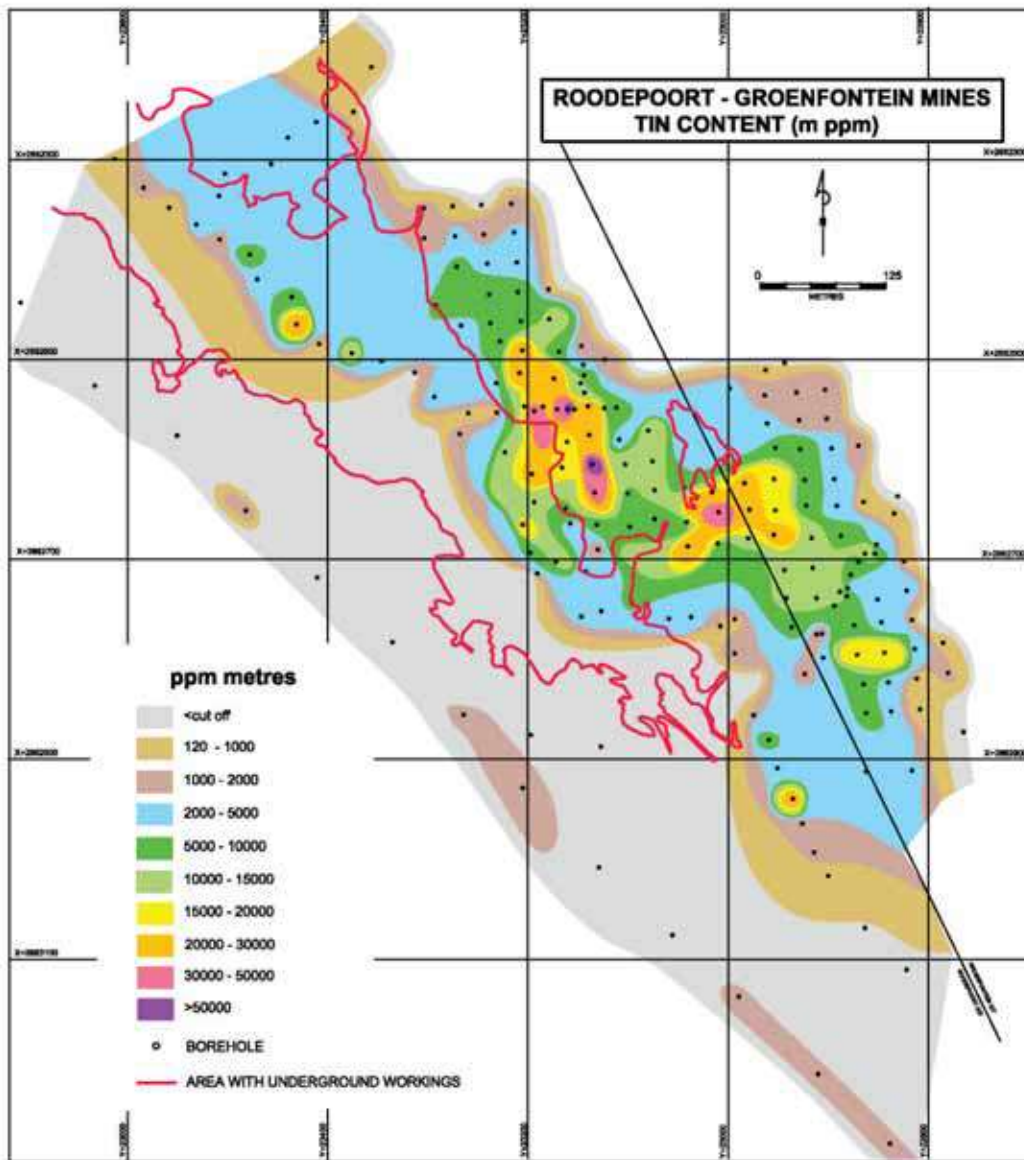
- A southwest limb of the main mineralised zone with a general dip of about 10° to 15° to the southwest, which is the general dip of rocks of the BIC rocks in the area.
- An eastern limb with a general dip of about 10° to 15° to the northeast.
- A north-northwest limb with a north-northwest general dip direction.

The overburden thickness increases down dip to the southwest as the mineralised Lease Granite dips beneath the barren Rashoop Granophyre. The overburden thickness is shown in relation to the 200 ppm Sn cut-off contour in Figure 8-6. The 200 ppm cut-off is at an average depth of 40m below overlying barren rocks in the south western limb of the mineralised zone and is mostly exposed on surface on the north east side of the anticlinal structure.

Figure 8-6 is a composite map showing the tin content isochon (expressed as tin metres ppm) in relation to the axis of maximum grade (grade isochon), and thickness (isopach).

The axes show that the areas of thickest development of mineralisation corresponds to the best grades. The tin content is also shown in relation to the 200 ppm contour. The extent of exposed mineralisation as well as the extent of area with underground working is also shown.

**Figure 8-6**  
**Composite map of drilling results**



## 9 HISTORICAL MINERAL RESOURCE ESTIMATE

The drilling data gathered during the drill programmes in 1963 and 1978 has been used by Greenhills to formulate an indicative mineral resource. It should be noted that this resource does not comply with JORC standards, since none of the QAQC, assay, or procedural documentation is available for verification. The indicative resource was compiled from scanned plans and sections compiled from the original drilling. Nevertheless, the indicative mineral resource which has been produced is the basis for current exploration work and is described here for reference.

### 9.1 Resource Model

Greenhills commissioned resource modelling through Shava Mining Enterprise (Pty) Ltd. A 3D model was constructed from files supplied in a portable document format (pdf). A total of 32 pdf files were received. Of these files, two were surface maps and 30 were section maps. All section information contained the following:

- Colour coded grade distribution of tin (Sn) ppm (tin parts per million).
- Scale bars used in registering section information into Vulcan.
- Section number information.
- Borehole number information.

These files were captured into Vulcan and a grade model was created. The pdf map was geo-referenced into Vulcan. Due to software setup, all co-ordinates are negative within Vulcan and positive within the maps. Section information was captured into Vulcan. No grid information was captured on the original section maps. Scaling of distances was used to create the referencing parameters for the vertical section registering. Borehole position information was used to reference the sections horizontally. Once all sections were captured within Vulcan, all Sn intercepts were digitized and polygons of ore zones created. This was done from 250 Sn ppm to 2000 Sn ppm.

The grade model was further delineated by breaking down triangulations in smaller sections to match grade distribution. Based on the information used, all triangulations have been assigned separate values. All available digitised section information was used in this way to generate a 3D wireframe model for each ore grade intercept. The models were all validated to check closure and intersections.

Using a priority-based boundary construction, a block model was constructed from the various triangulations into six grade groupings: 250 – 500 ppm; 500 -750 ppm; 750-1 000 ppm; 1 000 – 1 500 ppm; 1 500-2 000 ppm; and >2 000 ppm. From the historical data-

derived block model, an indicative mineral resource was defined (Table 9-1 and Table 9-2). Again it is stressed that this resource estimate is not JORC compliant. However, it forms the basis of the current exploration programme which is designed to validate these results to produce a JORC compliant Mineral Resource.

**Table 9-1  
Historical Indicative Mineral Resource grade distribution (not JORC compliant)**

Grade Interval (ppm)	Average Grade (ppm)	Volume (m <sup>3</sup> )	Metric Tonnes (SG of 2.65)	Tonnes of Tin metal
250-500	386	836 150	2 215 798	856
500-750	609	646 650	1 713 623	1 044
750-1000	874	244 900	648 985	567
1000-1500	1 175	259 900	688 735	810
1500-2000	1 776	120 500	319 325	567
>2000	4 652	29 650	78 573	366
<b>Totals</b>	-	<b>2 137 750</b>	<b>5 665 038</b>	<b>4 210</b>

**Table 9-2  
Cumulative volume and tonnage estimates based on historical data (not JORC compliant)**

Grade Cut-off (ppm)	Volume (m <sup>3</sup> )	Metric Tonnes (SG of 2.65)
>250	2 137 750	5 665 038
>500	1 301 600	3 449 240
>750	654 950	1 735 618
>1000	387 050	1 025 683
>1500	150 150	397 898
>2000	29 650	78 573



## 10 CURRENT EXPLORATION PROGRAMME

In 2010, VMIC was granted a new order prospecting right (No. 2205 PR) to conduct prospecting programmes on the property comprising the six farms: Zaaiplaats 223KR, Roodepoort 222KR, Groenfontein 227KR, Groendoorn 225KR, Sterkwater 229KR and Salomon's Temple 230 KR (Figure 4-1). The most recent exploration programme is focused on the farms Groenfontein 222KR and Roodepoort 227KR, and aims to define a resource of disseminated cassiterite ore within Lease Granite, by means of the twinning of a number of the 1978 Rand Mines boreholes and by drilling a number of new boreholes.

The exploration programme entailed the drilling and sampling of 53 boreholes (22 twinned with historic boreholes) during 2011. The core from the boreholes was analysed by Set Point Laboratories in Johannesburg. Analytical data obtained from the 22 twinned boreholes were compared to the historical borehole assay data in order to justify the incorporation of the historical data into the resource quantification exercise. Twinning of boreholes followed by the application of comparative and correlative statistics by Independent Resource Estimations (IRES) determined that the old data is "useable". Statistical analysis between the previous drilling results and the 22 twin boreholes from the current programme indicate a very good correlation.

The geological model and resource estimate compiled by IRES includes the historical data together with drill information and assay data from the current exploration programme. The model and resource estimate have been reviewed by MSA and in MSA's opinion, they reflect a fair representation of the project.

### 10.1 Data management and database

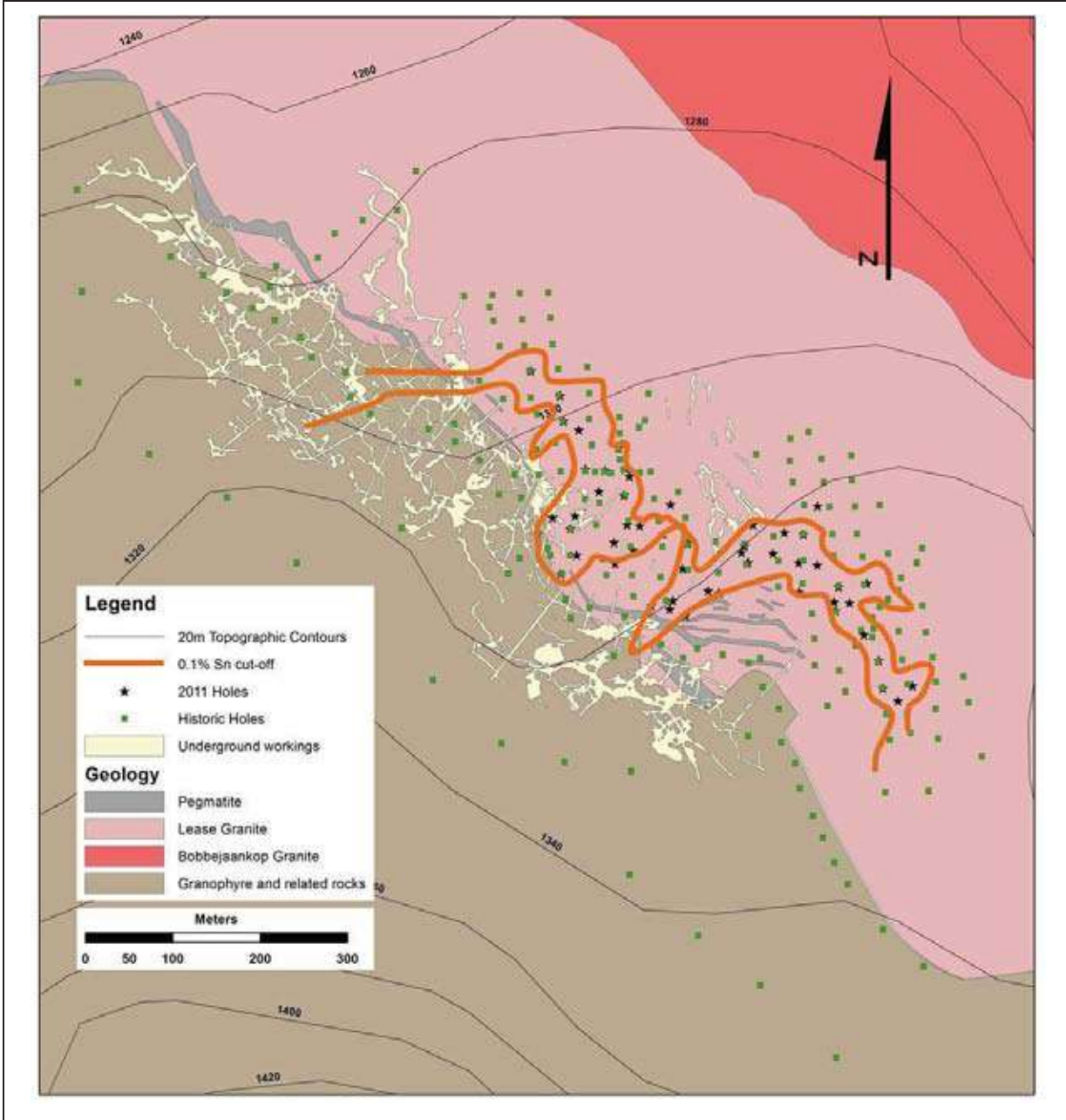
All drilling information was recorded on hard copy using pro-forma data sheets. These included 'quick log' sheets, geotechnical logs, geological log sheets and sample ledgers. These pro-forma logs were then scanned and digitized using equivalent excel spread sheets. Data entries were validated while being captured against the original hard copies. Once captured the data was validated for missing values, intervals and anomalous data entries. All digital information was stored on a central computer and regularly backed up onto two external data storage devices and another computer.

### 10.2 Current Exploration

The current exploration programme was focused on an area where extensive mining activity has taken place in the past. Much of this previous mining was focused on the extraction of high-grade pipe-like ore bodies, and only limited mining of disseminated ore was carried out. The current exploration programme targets the disseminated tin mineralisation occurring in the Lease Granite. It was proposed that a cut-off grade of 0.1% Sn would be

used and drilling was therefore focused within a well-defined targeted area identified from historical drilling work (Figure 10-1).

**Figure 10-1**  
**Composite map of historic and recent boreholes**



### 10.2.1 Diamond drilling and site management

Diamond drilling by means of the wireline method was undertaken by Drillcorp Africa (Pty) Ltd (Figure 10-2). Boreholes were sited using geological cross-sections, previous analytical information and soil and rock chip geochemistry. ArcGIS was used to manage all spatial data and final drill site confirmation was performed using ArcGIS. All drill sites were demarcated and made known to the contractor by a geologist or geological technician, with the borehole number being supplied, before the start of each borehole. Downhole surveys were not routinely undertaken since initial surveys indicated no significant deviation in the shallow holes that were drilled. Core orientation was not carried out.

**Figure 10-2**

**Drilling underway during the recent work programme**

Top left – the drill site was well managed with high HSE standards. Top right – the Drillcorp rig. Bottom left – close up of the Lease Granite drill core; Bottom right – Dr Leon Liebenberg examines the drill core.



The following procedures were applied during diamond drilling:

- Drill sites were plotted on large scale ArcGIS generated field plans, accompanied with an excel table consisting of the borehole ID, the coordinates (using WGS84 datum, LO29 coordinate system) and the planned drilling depths for each hole. A digital copy was then supplied to the exploration office in Mokopane.
- Layout of the drill sites were performed by means of a handheld GPS by either the geological technician or geologist.
- Drill sites were indicated to the drillers to ensure correct placement of the drills.
- All drilled boreholes were vertically inclined, HQ in size (63.5 mm internal diameter) with a PQ size (85 mm internal diameter) within the weathered zone.
- The drill core was retrieved from the core barrels after each drill run and laid out in steel core trays as provided by the driller.
- The driller recorded the end of run depth, drilled core length and core loss or gain. The end of each borehole was indicated and marked by a plastic marker.
- The driller marked each core box with borehole ID number, box number and the depth intervals (from and to).
- The drilling process and core recovered was monitored by a geologist on a daily basis with the core quality and driller's measurements verified by the geological technician or geologist.
- A provisional field geological log – hand written excel quicklog template was maintained where deemed necessary by the geologist. The quicklog assisted with the decisions to stop or continue drilling the boreholes.
- A daily progress report was completed based on the borehole ID, metres drilled, drilled borehole position, core size, date drilled and date processed (sampled).
- The core trays were transferred to the Mokopane core yard either by the geologist or geological technician. Detailed logging and sampling were performed on a regular basis.
- The instruction to cease drilling was issued by the geologist to the driller in charge at which point the drill contractor dismantled the rig and moved to the next site.

- A hand held GPS was used in the determination of the coordinates of the boreholes with the final co-ordinates being determined by the surveyor.
- The driller was responsible for cleaning up of the immediate surroundings and borehole site rehabilitation.
- The rehabilitated drill site was then again visited by the geologist in charge, verifying that the rehabilitation has been performed as per the rehabilitation protocol.

### **10.2.2 Borehole Survey**

Boreholes drilled during this project, as well as visible historical boreholes, visible old mine workings and shafts were surveyed by Exact Survey Services using a real time differential GPS. All existing historic borehole data was converted from the Cape System LO 29 Clarke to WGS/29 and visible historic boreholes were also re-surveyed. All the boreholes were surveyed on the edge of the casing and the elevation determined on the top of the concrete cover. The survey was conducted using a single control beacon (located on the farm Solomon's Tempel) approximately 1.5 km from the drilling site.

### **10.2.3 Core logging and sampling**

Sampling of the core was undertaken after the completion of geotechnical logging, geological logging and metre marking of the core. Photographs of the core were either taken before or after sampling. All core measuring, core cutting, sampling, bagging and despatch procedures were completed at the Mokopane exploration premises under the full time supervision of a qualified geologist.

Prior to the commencement of the logging, the core was clearly marked with a longitudinal line showing the orientation of the core (later used by core cutters) and sprayed with water. The orientation and arrangement of the core was also verified by identifying any abrupt changes in lithological appearances and also by "fitting" core pieces to verify the correct position.

Core logging was performed by the onsite geologist, utilizing a pro-forma quick log and geotechnical log sheet. The quick log was used to give a rapid overview of the borehole lithologies encountered, and the nature of mineralisation.

#### **10.2.3.1 Geotechnical logging**

Each driller's run was measured against the actual core length, enabling the calculation of core gain and or loss. The intactness of the core was noted, i.e. was the core solid or fractured. Fractured core pieces less than 10 cm in length were summed and deducted from the total solid core length in order to determine rock quality designation. In addition joints and natural fractures were also measured (angle and spacing).

### 10.2.3.2 **Geological logging**

Geological logging only commenced once the core was washed, cleaned, photographed, geotechnically logged and split.

The following procedures were applied during geological logging:

- Core was sprayed with water in order to assist with the identification and description of lithology, mineralization, alteration, colour and texture.
- Different colours were used in the log sheets to indicate different information on the core:
  - Yellow - Comments on the lithology, colour, alteration, veins, mineralogy etc.
  - Red - Utilised to mark ore minerals such as sulphides. Cassiterite is mostly disseminated throughout the core.
  - Blue - Indicated cutting marks, specifically for sampling.
- The core logging process was facilitated by the use of a geological log sheet designed according to standard look-up tables and formats, to guide the geologist through a standard set of logging requirements. Core logging standards were developed by VMIC.

### 10.2.3.3 **Sampling**

The objective of core sampling was to provide suitable samples for laboratory analyses of the selected mineralised zones identified during logging. Sample lengths were standardised to 1 m intervals. However, sample lengths in well-mineralized zones or zones with variable mineralization were matched accordingly and these normally varied between 0.15 m to 1.0 m. Sample intervals were chosen at the supervising geologist's discretion.

The following procedure was applied during sampling of the core:

- The median (longitudinal) cut line was marked with a blue waterproof wax pencil (china marker) along the length of the core.
- Sampling intervals were defined by the geologist, who recorded a unique sample number on the core with a blue waterproof wax pencil.
- Once the mineralised zone was identified by the geologist, the zone was split and sampled.

- Core was cut along the median line using a diamond core saw.
- Sampling of core was performed once the ticket and bag preparation were completed.
- Remarking of the split core halves in the core-trays were performed before the remainder of the core was stored.
- Pre-numbered sample ticket books containing a unique sample numbering range with tear off duplicate sample ticket numbers were utilised by the geologists. In order to retain vital information, the from- and to- depths, together with a brief description of the samples, were written in the sample ticket book next to the appropriate sample number. QA/QC samples were also included in the ticket book system.
- Plastic sample bags were prepared and laid out in numerical order with a sample number ticket placed inside each bag, a second ticket rolled in and pinned on the inside of the bag. Each sample bag contained the sample number written on the outside of the sample bag by means of a permanent marker pen.
- Core samples and QA/QC samples were placed and dispatched in the same sample bags.
- Regular checks were performed by the geologists to ensure that the correct sample labelling and numbering was performed,
- Plastic sample bags were sealed by means of triple folding of the top layer of the sample bags and pinned together. The sample bags were then placed into large polyweave bags and sealed with cable ties for dispatch to the laboratory. Each bag was identified by the project name, batch number, number of samples and the sample number interval in permanent black marker pen on the outside of polyweave bag.

#### 10.2.3.4 **Chain of Custody**

Chain of custody of samples is important to show who has accountability for the samples at different stages of the process, and to provide assurance that the samples have not been interfered with. The following procedures were followed:

- Sample details (borehole number, from and to depths, sample length, sample number, brief description, mineralization and where the sample was taken) were recorded in the Mokopane Tin Project sample ledger.

- Sample numbers were presented to the laboratory requesting the required analyses and date of delivery. The responsible person was identified and recorded on each sample submission sheet. Each sample submission sheet contained a specific submission sheet number.
- The samples were delivered by the geologist or designated person to Set Point Laboratories in Mokopane, approximately 800 m from the exploration premises. The sample submission sheets were presented with the samples.
- Set Point Laboratories checked the sample labelling and sample condition and issued a sample reception record with a specific job number emailed to Frontier Resources, confirming the sample details and analyses requirements.

#### **10.2.4 Laboratory**

Half core samples were sent to Set Point Laboratories for analyses of Sn, W, Cu and F. Sample preparation and analyses was conducted by Set Point Laboratories, a reputable ISO17025 accredited laboratory.

##### **10.2.4.1 Laboratory sample preparation**

The laboratory procedures for sample preparation consist of:

- Checking of received samples for number, labelling, sample bag condition and spillage.
- The moisture content of samples is recorded.
- Receipt report issued to client.
- If the above criteria are met then a Sample Reception Record is generated with a specific job number, date, sample details and analyses requirements which is emailed to the client.
- Samples are dried at 110°C.
- Samples are weighed and recorded.
- Samples are crushed in a jaw crusher and crushed material is placed in new labelled plastic bags. The jaw crusher is cleaned after every sample with crushed quartz and compressed air.
- Crushed material is further reduced in a Rhino Crusher down to <2.8 mm (>80%).



- Sample material is split in a Johnsons Riffle Splitter. The split for analysis is placed in a new labelled bag. The remainder of the sample material is returned to the original bag and to the client as Coarse Reject Split.
- Sample splits to be analysed are milled in a Labtech Essa LM2 mill for 5 minutes to achieve >90% <106 µm. Equipment is cleaned with water and compressed air.
- The milled sample is emptied into a tray or onto a paper sheet and returned to the sample bag.
- The aliquot for assay is taken from the milled sample bag and samples are repacked.
- Sample aliquots are despatched to the Set Point Laboratory in Isando, Johannesburg for sample analyses 3 times per week using Set Point Laboratory drivers and vehicles.
- Performance of the Rhino Crusher and mill is constantly monitored, with the results of screening being reported and made available to the client upon request.

#### 10.2.4.2 **Laboratory QA/QC**

A Quality Assurance / Quality Control (QA/QC) procedure is followed by Set Point Laboratories to ensure confidence with the sampling and analytical data. This includes:

- The introduction of field blanks, consisting of washed quartz sand, where each batch of samples submitted to the laboratory contained a blank ratio of 1 in 20 samples (5%);
- The laboratory made use of commercial certificated and laboratory prepared standards on a basis of approximately 1 in 20 (5%) samples. The details of the standards used by the laboratory are shown in Table 10-1;
- The laboratory duplicate analysis of the sample aliquot's were performed on a basis of 1 in every 10 (10%) samples;
- The laboratory introduced a blank sample on a basis of 1 in 20 (5%) samples.

**Table 10-1  
AMIS 0020 and 0021 certified sample standards**

Sample standard		Sn% (XRF)	Sn% (other methods)	Zn ppm (XRF)	Zn ppm (other methods)	Cu ppm (other methods)	Cu ppm (XRF)	Ag ppm (other methods)
AMIS0020	Certified concentration	0.68 ± 0.04%	0.698 ± 0.056%	2164 ± 199 ppm	2286 ± 190 ppm	260 ± 23 ppm		
	Provisional concentrations						274 ± 50 ppm	17.6 ± 3.1 ppm
AMIS0021	Certified concentration	0.27 ± 0.026%			352 ± 42 ppm			
	Provisional concentrations		0.29 ± 0.043%			54 ± 7.9 ppm		

### 10.2.5 Specific gravity and bulk tonnage data

The specific gravity of each sample was determined by Set Point Laboratories, an ISO17025 accredited laboratory. Gas pycnometry is the analytical technique used at Set Point Laboratories to measure specific gravity on soils or pulp (already milled) material. This data was incorporated into the mineral resource estimation.

### 10.3 Future Exploration Targets

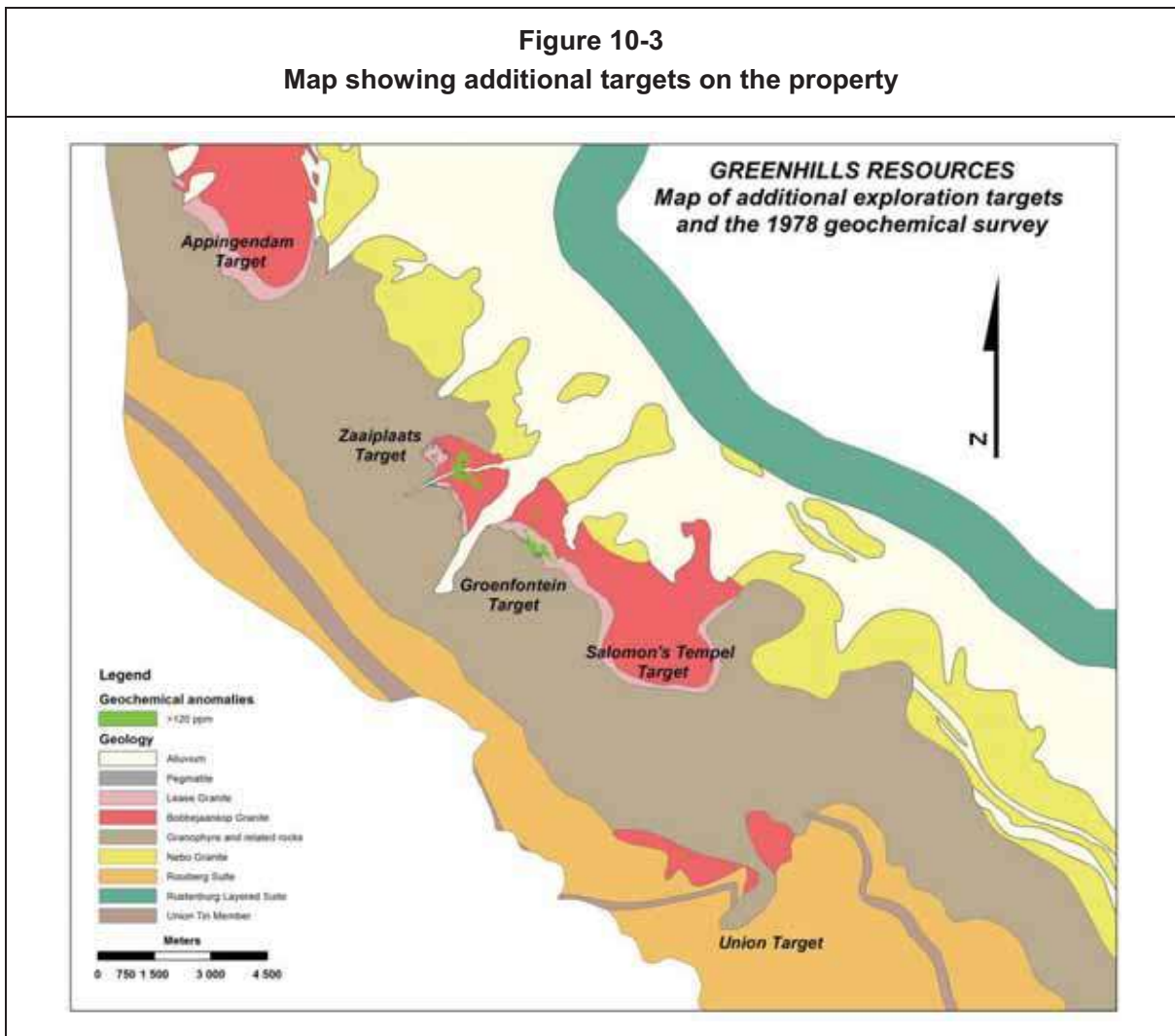
In addition to the Groenfontein Target, which is the focus of the recent drilling, 4 targets have been identified regionally in the project area (Figure 10-3). These are the:

- Zaaiplaats Target – historically mined for tin in both the Bobbejaankop and Lease Granites, this target was partly covered by the Rand Mines geochemical sampling programme
- Salomon's Tempel Target – historically mined on a limited scale for tin in the Lease Granite

- Appingendam Target – vein systems historically mined for tin, molybdenum and rare earth elements in the Bobbejaankop and Lease Granites
- Union Shale Target – historically mined on a limited scale for tin from breccia bodies and structures associated with the Union Tin Shale unit in the overlying felsites of the Rooiberg Group

Higher-grade parts of each of these targets have been partially mined historically on various scales for tin and other elements. Apart from a portion of the Zaaiplaats Target (covered by the Rand Mines programme), none of these targets have been previously investigated for lower-grade styles of mineralisation. They are therefore key targets for further exploration and expansion of the tin resource in the project area.

**Figure 10-3**  
**Map showing additional targets on the property**



## 11 RESULTS OF THE 2011 DRILLING PROGRAMME

The results of the 2011 drilling programme confirm the results of the historical drilling data:

- Low-grade disseminated tin mineralisation is found in the Lease Granite. The zone of mineralisation crops out at surface and extends NE-SW along the strike of the tabular Lease Granite for over 500 m. This forms the bulk of mineralisation identified.
- A second zone of disseminated mineralisation is also found in the Lease Granite immediately below the contact with a pegmatite which is a discontinuous feature in the roof of the Lease Granite close to the contact with the overlying Rashoop Granophyre. This zone of mineralisation is more irregular than the larger disseminated body and does not generally crop out at surface. It has been locally mined in the past.
- Local high-grade pipe-like bodies exist within and below the lower-grade mineralised zones. Although high-grade, they are not voluminous and do not make up a significant resource.
- Locally, drilling has intersected high-grade mineralisation with grades reaching up to 16.86% Sn over 1 m (a probable pipe), 0.46% Sn over 11 m, and 0.41% Sn over 16 m.

A number of cross-sections depicting geology and grade distribution have been constructed along NE-SW lines perpendicular to the strike of the orebody (Appendix 1). On each cross-section, grades have been contoured at 100 ppm, 500 ppm and 1000 ppm levels to add geological constraints to the resource calculation.

## 12 MINERAL RESOURCE ESTIMATION

The Mineral Resource estimation was undertaken by Mr Dexter Ferreira of IRES, a senior geostatistician with over 20 years' experience in project evaluation internationally, including extensive involvement with mineral projects throughout South America and Africa. He is a member of the South African Council for Natural Scientific Professions, and qualifies as an 'Expert', 'Competent Person' and 'Qualified Person' as defined in National Instrument 43-101 and the JORC Code. MSA has reviewed the estimation undertaken by Mr Ferreira and is satisfied that the Mineral Resources presented are a fair representation of the tin deposit investigated on the property.

### 12.1 Data Validation

The datasets available for the Mokopane Tin Project consist of current and historical drillholes.

Data verification was carried out by checking whether the 'Froms' and 'Tos' were consistent for each drillhole sample. The data was reviewed to check for zero grades (none in database), and other obviously erroneous data such as negative grades. Drillhole numbering was checked within Datamine™ in order to ensure no duplication of collar identifiers.

The location of each surface drillhole was checked and verified by site staff as well as the lithological and assay tagging within those drillholes. Survey points denoting the locations of the holes were received and plotted in three dimensions using Datamine™ alongside images obtained from the mine site in order to assess whether or not the drillhole collars were in the correct place. No issues were discovered with data location.

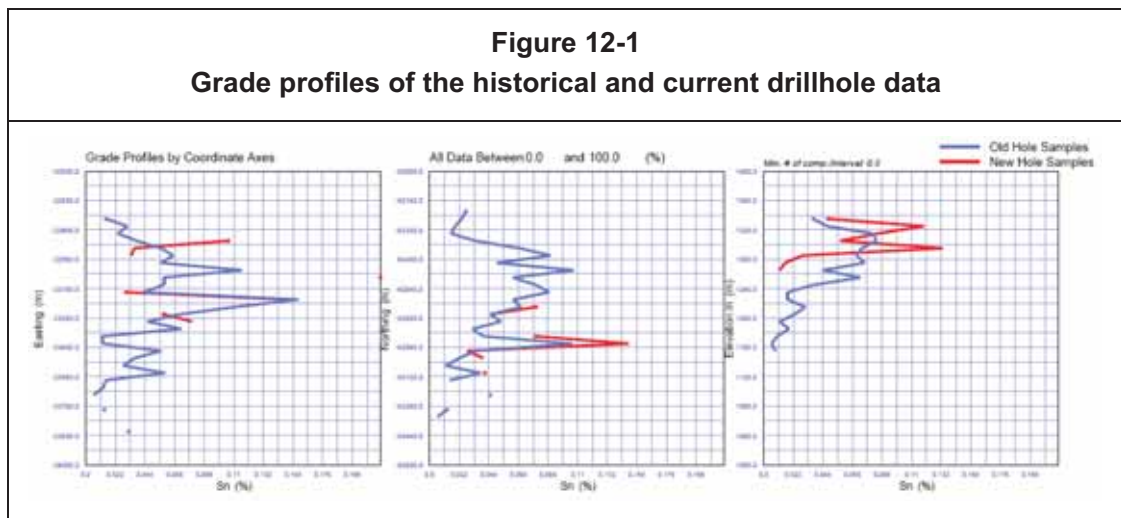
#### 12.1.1 Geological Modelling

Although the mineralisation occurs within a homogeneous rock type, there are a number of mineralised intersections along the western flank of the project area which occur near the contact of the pegmatitic granite with the lease granite. This mineralisation has been differentiated geologically, and given that the rocktype is identical to that of the main disseminated mineralization, it was decided to differentiate this mineralisation by constructing a digital terrain model ("DTM") which demarked the bottom contact of the pegmatitic granite with the lease granite. This would allow for the separation of mineralization populations and would prevent the smearing of the contact mineralisation with the disseminated mineralisation.

### 12.1.2 Validation of Historical Data

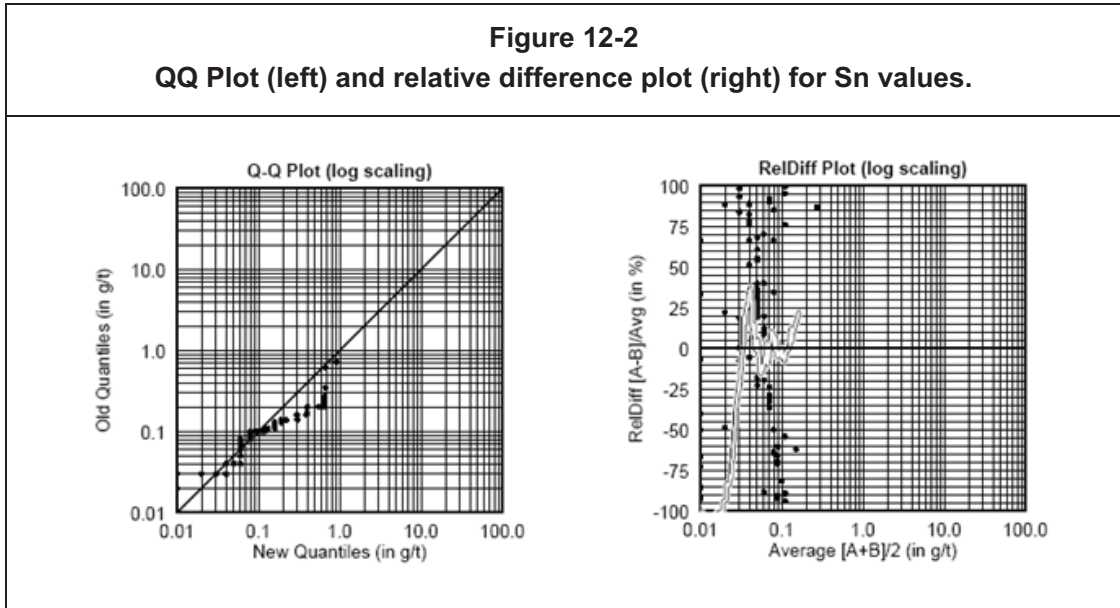
Since two datasets were used for this study, it was important to compare them using bivariate statistics to ensure that the historical dataset is valid, and that both datasets could be concatenated into one dataset. This was achieved by making swath plots – plotting one dataset against another versus Northings, Eastings and Elevations.

The swath plot reveals that the different datasets appear to be quite similar in all three directions (Figure 12-1).



A second validation test was to use the equation of least squares to pair samples from different datasets while computing three dimensional distances between them (i.e. Euclidean spacing). This was done using a FORTRAN routine and the output files sorted on ascending distance from one another then plotted on arithmetic and logarithmic scattergrams, quantile-quantile plots (“QQ”), and relative difference plots. The results for Sn samples from current and historical drillholes are shown in Figure 12-2. Assay A refers to ‘New’ samples and Assay B refer to ‘Old’ samples (left plot is in arithmetic scale – right plot is in logarithmic scale).

**Figure 12-2  
 QQ Plot (left) and relative difference plot (right) for Sn values.**



Although the QQ plot suggests that at the higher Sn grade thresholds, the current Sn assays are higher than the old assays, the relative difference plot tells us that there is no bias between the current and historical assay datasets. The main difference between the 2 datasets is that the clustering of the current assays is tighter than the historical data. In addition, the sample lengths of the current data are mostly of uniform lengths, whilst that of the historical data varies considerably. In summary, the comparative statistics suggested that both datasets can be combined into one dataset for statistical and estimation purposes.

## 12.2 Statistical Analysis - Naïve Statistics

A complete set of naïve statistics was performed on the drillhole database that was contained within the following limits: -24100N and -22400NS, -2664000E to -2662100E, and 1000 m elevation to 1400 m elevation. These statistics examine the characteristics of Sn grade values as original samples, and as sample composites. Table 12-1 indicates the naïve statistics for samples contained within the project limits.

**Table 12-1  
Naïve statistics of uncut samples (Sn)**

<b>STATISTIC</b>	<b>Current Drillholes</b>	<b>Historical Drillholes</b>
<b>Number of Data</b>	263	1778
<b>Mean (%)</b>	0.059	0.066
<b>Standard Deviation</b>	0.087	0.200
<b>Coeff. Of Variation</b>	1.475	3.012
<b>Maximum (%t)</b>	0.718	3.807
<b>Upper Quartile (%)</b>	0.063	0.050
<b>Median (g/t)</b>	0.035	0.017
<b>Lower Quartile (%)</b>	0.014	0.004
<b>Minimum (%)</b>	0.002	0.001
<b>Number of Holes</b>	202	53

Table 12-1 reveals a higher mean Sn grade for the current samples compared to the historical ones.

### 12.3 Sample Compositing

Statistics were compiled on the sample lengths of drillhole data (Table 12-2).

Sample length statistics for the drillholes reveal median values around 1.0m for the current holes, whilst the historical holes reveal a much broader range resulting in a higher mean of ~15.0m. A detailed look at the historical drillhole database shows us that the only well-defined samples (i.e. the From and To intervals specified) are the composite assays. However, within these larger composite values are notes referring to high and low Sn grades and their respective sample lengths. The problem with the latter is that nowhere in the database does it reveal where these “selected” lengths fit in within the longer composite lengths.



**Table 12-2**  
**Naïve statistics of sample lengths (Sn)**

<b>STATISTIC</b>	<b>Historical Drillholes</b>	<b>Current Drillholes</b>
<b>Number of Data</b>	555	1796
<b>Mean (m)</b>	14.941	0.956
<b>Standard Deviation</b>	20.613	1.136
<b>Coeff. Of Variation</b>	1.379	1.188
<b>Maximum (m)</b>	124.000	47.000
<b>Upper Quartile (m)</b>	17.000	1.000
<b>Median (m)</b>	8.000	1.000
<b>Lower Quartile (m)</b>	3.785	1.000
<b>Minimum (m)</b>	0.020	0.040

It is obvious that an original database that reveals every smaller sample length exists and was then used to generate the broader historical database received for this study. Given the limitations regarding these selected samples, only the larger composite assays could be used in this study.

The samples were thus composited at 1 m lengths beginning at the collar of the drillhole. The results are shown in Table 12-3 below for composites (composited within the wireframes). The composite statistics were done in order to assess whether the compositing has maintained the distribution characteristics of the original samples.

**Table 12-3  
Naïve statistics of uncut 1 m composites (Sn)**

STATISTIC	Historical Drillholes	Current Drillholes
Number of Data	3239	1647
Mean (%)	0.052	0.062
Standard Deviation	0.079	0.161
Coeff. Of Variation	1.527	2.608
Maximum (%t)	0.718	2.393
Upper Quartile (%)	0.062	0.050
Median (g/t)	0.027	0.017
Lower Quartile (%)	0.010	0.004
Minimum (%)	0.002	0.001
Number of Holes	202	53

The naïve statistics reveal a strong coefficient of variation which tells us that there is significant variability within the grade population. This is expected in this kind of mineral deposit.

## 12.4 Sample Spacing

The Euclidean spacing between samples was examined. Overall, the distances are typically 21 m to 38 m (averages). Table 12-4 shows the spacing between samples in three-dimensional space for all types of composited surface drillholes.

A block size of 10 m x 10 m x 2 m was chosen to discretise the block model. This dimension is based on not having more than 2 unsupported blocks in between 3 supported blocks (i.e. blocks pierced by drillholes). Therefore, since the median distance between drillhole samples is approximately 14 m, which would imply no blocks in between drillhole pierce points. The smaller Z dimension used was based on the grade variability down each hole. A consistent block size was utilized throughout.

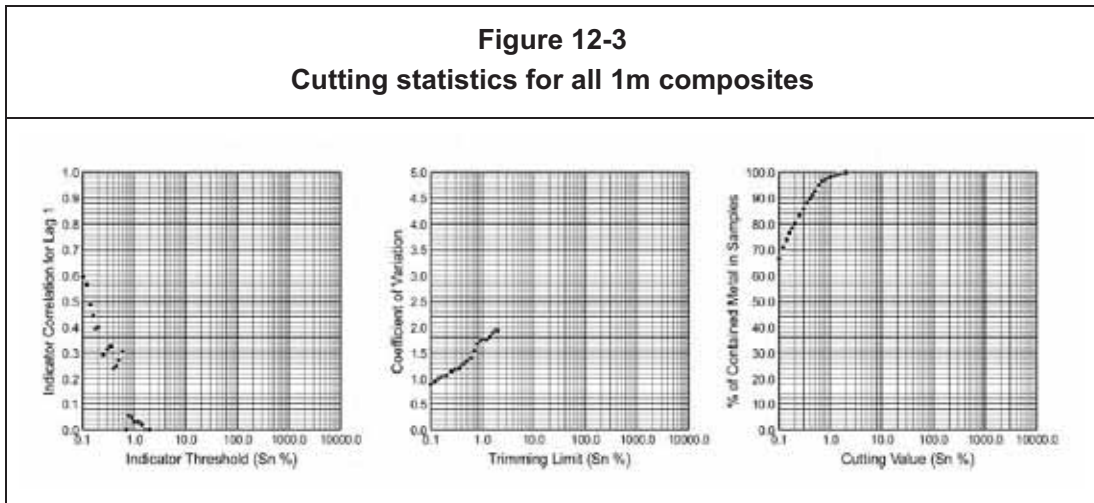
**Table 12-4  
Euclidean Spacing – 1 m Composites**

Data Type	Average Metres	Maximum Metres	Lower Quart. Metres	Median Metres	Upper Quart. Metres
Historical	38.39	461.13	20.79	27.18	33.77
Current	21.10	41.37	15.59	20.80	26.28
ALL	16.66	461.13	9.14	14.08	19.98

### 12.5 Cutting Limits

Cutting statistics were performed with the help of cumulative log probability plots, indicator correlation for lag 1 plots, coefficient of variation plots and finally percent metal contained plots. These plots are found in Figure 12-3. It should be noted that these are merely guidelines and that ultimately, the cutting limit chosen is a grade limit suggested by these plots.

**Figure 12-3  
Cutting statistics for all 1m composites**



The indicator correlation for lag 1 plots show the correlation between samples for the first lag set. Plotting this indicator against increasing minimum thresholds for Sn grades leads

to a line tending closer towards zero. In other words, at ever increasing thresholds of Sn grades, there are fewer and fewer samples of similar grade. At this point, it indicates a lack of correlation between samples within the first lag set, and suggests an ideal cutting limit for assay values.

The coefficient of variation plots shows the change in this coefficient with increasing Sn values. A rapid change in this coefficient indicates a rapid change in the standard deviation and/or a change in the mean. This suggests an ideal cutting limit for Sn grades.

Kinks, plateaus and/or changes in the cumulative log probability plots also suggest changes in populations (perhaps subpopulations) and serve as a good indicator of cutting limits for Sn values. A slightly different plot is the percent of contained metal in samples versus increasing trimming levels for metal grades. This plot enables one to check how much metal is being lost to cutting at a certain Sn grade thresholds.

Table 12-5 lists the all the final cutting thresholds suggested by all methodologies described, and their impact on the overall database. The reasons for choosing one methodology over another is primarily based on how well defined that limit is depicted on the appropriate plot.

<b>Table 12-5 Euclidean Spacing – 1 m Composites</b>			
<b>Sn Grade Limit</b>	<b># of Original Data</b>	<b># of Comps cut</b>	<b>% of Data</b>
0.70%	4886	38	0.78

## **12.6 Estimation Parameters**

### **12.6.1 Variography**

The models were estimated using data only contained within the defined limits. Pairwise relative variograms were used in this study; therefore no data transformation was necessary. Variography was done on the entire dataset beginning at 0° and calculating clockwise in 20° increments using a horizontal and vertical tolerance of ±12.5° at 50m lags; also for a maximum of 30 lags. An additional series of runs were done with a wider tolerance set at ±22.5°. Nugget contribution was taken from downhole variograms.

Directional variography revealed relatively strong continuity at 140° and weaker anisotropism in the 50° direction. No visible anisotropism was seen for plunges or dips.

Once the major direction of anisotropism was selected, a final plot revealing all three directions was generated; referred to as a triplet. A double spherical model was fitted for all three directions while maintaining 3D consistency and the contributions of each range were used in the estimation process.

### 12.6.2 Interpolation

Ordinary kriging was selected as the final estimation method of interpolating Sn grades into a three-dimensional block model. The block size chosen was identical to that discretizing the geological model for both models, 10 m x 10 m x 2 m (Northing x Easting x Elevation). Within the project area there were 150 rows of blocks in the X direction, 160 rows of blocks in the Y direction and 201 columns of blocks in the Z direction, for a total of 4 824 000 blocks. The project area consists of an area from: -2663600N and -2662000N, 24000E to 22500E, and 1 000 m to 1 400 m elevation.

A minimum of three and a maximum of ten composites were utilized for an estimate. Ordinary kriging was performed with a discretisation of 5 x 5 x 1 (XYZ). The search radii used approximately equaled the variogram ranges in the plane of the deposit. The search strategies utilized in the ordinary kriging runs are shown in Table 12-6; the radii shown relate to ellipse dimensions used.

Table 12-6 Estimation search strategy						
Metal	Principal Direction		Minor Direction		Vertical Direction	
	Radius	Azimuth/Dip	Radius	Azimuth/Dip	Radius	Azimuth/Dip
	Meters	Degrees	Meters	Degrees	Meters	Degrees
Sn	120.0	140°/0°	60.0	50°/0°	2.0	50°/90°

Tests were previously performed to investigate the effects of certain interpolation parameters on the variability of the estimates. Firstly, the maximum number of samples utilized for an estimate was examined. In this estimation model, the maximum is set to 10 composites, with an average of 8 composites used. A number of ordinary kriging runs with various maximum sample values were done, and the average variance of each run was compared to the maximum number of samples utilized. As the maximum number of samples is increased, the change in the variance decreased. The maximum number of

samples is then selected from the area where a change in slope (becomes flatter) occurs, which is in this case, anything more than 10 samples. At this point, the addition of more samples does not significantly change the variance at all. Thus, a maximum of 10 samples was chosen in order to generate an estimate.

Another series of estimation runs were done, but with a more relaxed search ellipsoid size. The ranges were increased to 200 m in the 140° direction, 90 m in the 50° direction and 3 m in the vertical direction - and the model re-estimated. The minimum and maximum number of composites required to inform a block were kept the same but with the added restriction that no more than two composites could be taken from the same drillhole. These blocks were given a special code since they would be denoted as Inferred Mineral Resources.

Another series of estimation runs were done, but with a much more restrictive search ellipsoid size. The ranges were decreased to 50 m in the 140° direction, 25 m in the 50° direction and 1 m in the vertical direction - and the model re-estimated. The estimates were given the additional restriction of not sourcing more than two composites from any one drillhole. These blocks were given a special code since they would be denoted as Measured Mineral Resources.

## **12.7 Validation**

### **12.7.1 Cross Validation**

Cross validation tests were performed on the model. Naïve cross-validation consists of removing one sample and using the parameters to estimate it, and then comparing it to the original sample. This was done systematically for all samples. Overall, the correlation for the entire project area has a correlation coefficient of 0.763 for Sn, which indicates an acceptable amount of variability.

Simple cross validation takes all the samples that contribute to an estimated block, weighs them by length and then compares them to the estimated block. This test is done to examine the smoothing of the estimate. Samples occurring within an estimated block should have a grade similar to the block estimate itself. This test was done for all the segregated geological sub-units. The result was a correlation coefficient of 0.94, which demonstrates that little smoothing has taken place within the estimates.

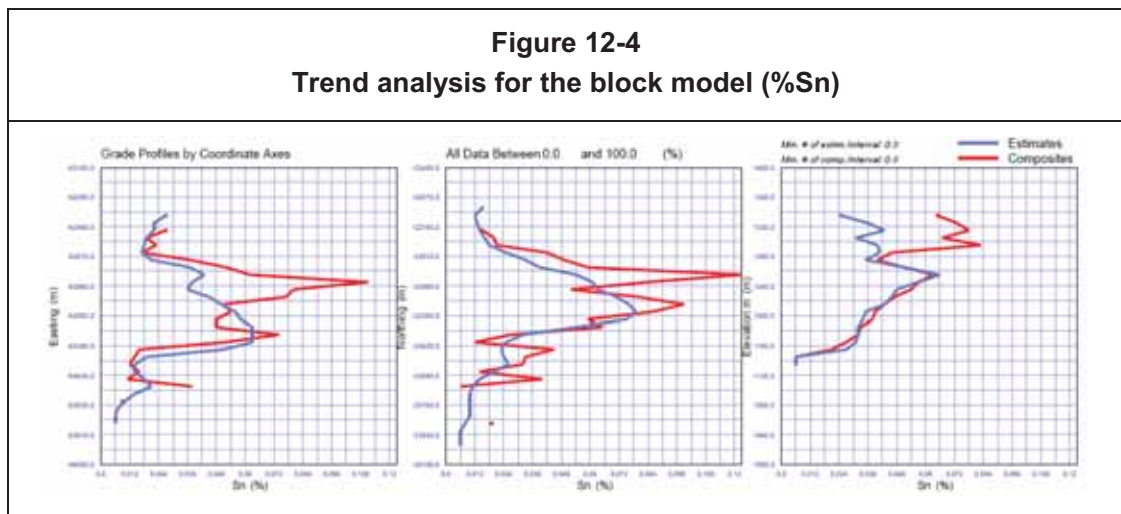
### **12.7.2 Residuals**

Residual bias was studied by determining the difference between the actual grade and the estimated grade; a test done via naïve cross-validation. These differences are then plotted on a frequency distribution plot and the mean established. An unbiased estimate would have a mean of zero. The model has a mean of -0.0006% Sn, which indicates negligible bias.

### 12.7.3 Trend Analysis

Trend analysis was undertaken on the block model. This examines the composites used in the estimation process by comparing them to the final block model. Northings, Eastings and Elevation versus Sn grades are all analysed (Figure 12-4). This is done to ensure that any trends present within the dataset are reflected in the final block model.

The trend analysis indicates that the estimated block model closely follows the trends as present in the composites – in all three directions.



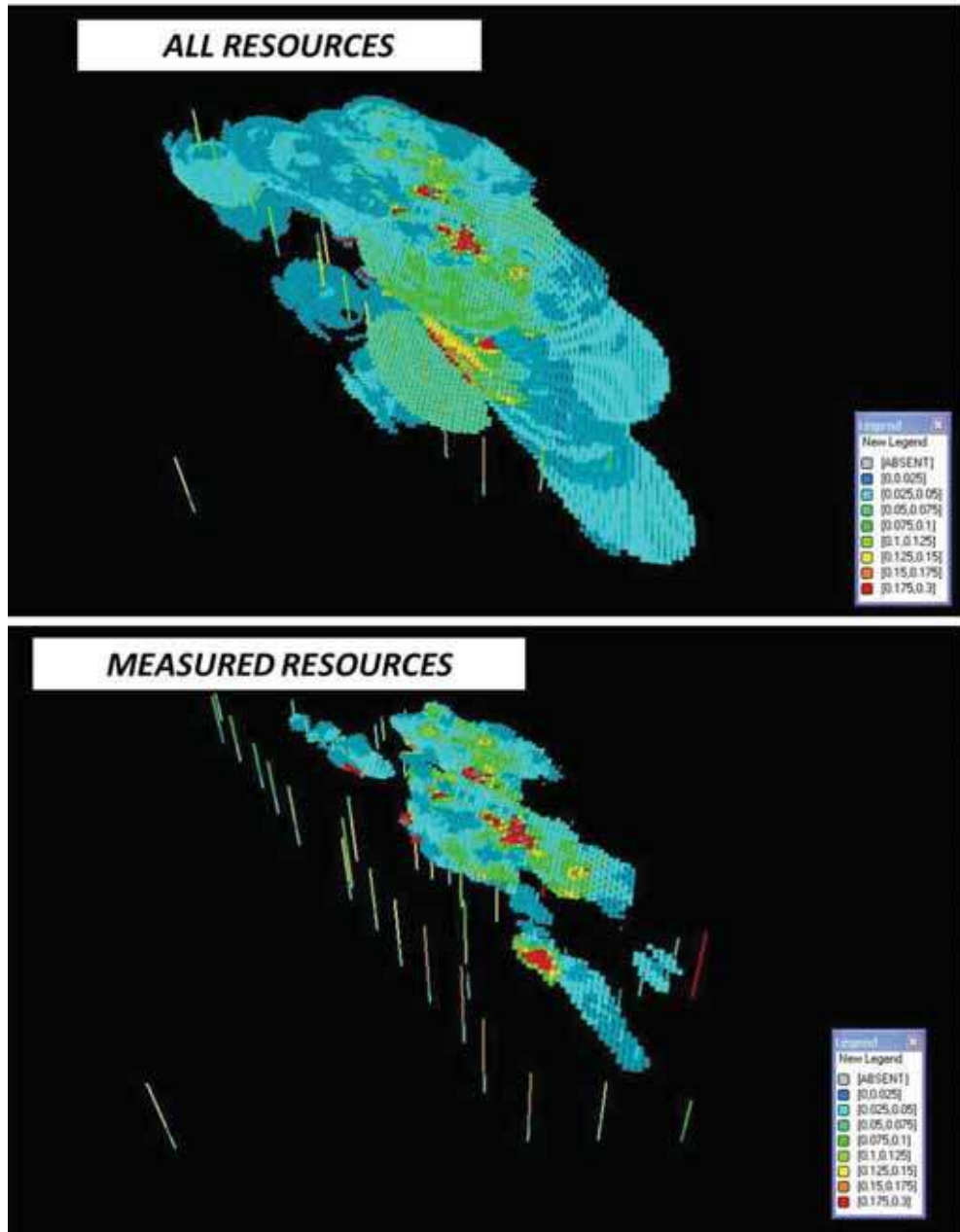
### 12.8 Specific Gravity

A specific gravity value of 2.65 was applied on a per block basis in order to convert block volumes into tonnages. This figure is based on the gas pycnometry data derived from the sample pulps (Section 10.2.5).

### 12.9 Geological Block Model

Images of the Mokopane Tin Project block model are shown below (Figure 12-5).

Figure 12-5  
Geological Block Model





## 12.10 Mineral Resource Statement

The Mineral Resources estimated within the Mokopane Tin Project are classified as Measured, Indicated and Inferred by applying different variogram ranges to the double structure spherical models. The criteria utilized were as follows: block estimates estimated within the first variogram range of the double structure spherical models were classified as being within the measured category. This principle range of 50m approximately represents two thirds of the total variance. Visual inspection of these blocks will reveal that they are quite contiguous along strike throughout the deposit, and not prevalent in isolated clusters.

Mineral Resources estimated via the second structure of the double spherical model were classified as indicated whilst resources estimated at about one and half times the longest variogram ranges were classified as inferred. The Mineral Resources tabulated (Table 12-7) are for estimates occurring below the rock/overburden surface and are shown for a range of Sn cut-off grades.

In the Lease Granite on Groenfontein 227KR (the Groenfontein target), an Indicated + Measured Mineral Resource of 3 095 000 tonnes, containing 4 792 tonnes of tin (at 0.1% Sn cut-off) has been estimated, with a further 898 000 tonnes, containing 1 203 tonnes of tin (at 0.1% Sn cut-off), in the inferred category. This Mineral Resource represents only one of five targets identified, and may be significantly increased through further exploration on these targets.

A preferred cut-off of 0.1% tin has been applied by benchmarking the project against other projects worldwide, and by applying an average cash buyer (London Metal Exchange) tin value over the past three years (~USD 17 800). However, there is upside to the resource should the tin price remains high.



**Table 12-7  
Mineral Resources for the Mokopane Tin Project**

Measured				Indicated				Inferred			
Cut-off Grade Sn (%)	Tonnes	Sn Grade (%)	Sn Tonnes	Cut-off Grade Sn (%)	Tonnes	Sn Grade (%)	Sn Tonnes	Cut-off Grade Sn (%)	Tonnes	Sn Grade (%)	Sn Tonnes
0	10,289,000	0.052	5,350	0	85,384,000	0.018	15,369	0	49,073,000	0.017	8,342
0.01	8,459,000	0.062	5,245	0.01	61,591,000	0.023	14,166	0.01	35,681,000	0.021	7,493
0.02	7,359,000	0.069	5,078	0.02	18,954,000	0.050	9,477	0.02	9,843,000	0.046	4,528
0.03	6,153,000	0.078	4,799	0.03	12,169,000	0.064	7,788	0.03	5,745,000	0.062	3,562
0.04	4,802,000	0.090	4,322	0.04	8,451,000	0.078	6,592	0.04	3,901,000	0.075	2,926
0.05	3,722,000	0.104	3,871	0.05	6,550,000	0.088	5,764	0.05	2,990,000	0.085	2,542
0.06	2,884,000	0.118	3,403	0.06	4,683,000	0.101	4,730	0.06	2,078,000	0.099	2,057
0.07	2,267,000	0.132	2,992	0.07	3,508,000	0.114	3,999	0.07	1,442,000	0.115	1,658
0.08	1,817,000	0.147	2,671	0.08	2,798,000	0.124	3,470	0.08	1,203,000	0.123	1,480
0.09	1,434,000	0.163	2,337	0.09	2,290,000	0.132	3,023	0.09	1,027,000	0.129	1,325
0.1	1,177,000	0.179	2,107	0.1	1,918,000	0.140	2,685	0.1	898,000	0.134	1,203
0.11	1,001,000	0.192	1,922	0.11	1,247,000	0.160	1,995	0.11	536,000	0.157	842
0.12	840,000	0.206	1,730	0.12	1,058,000	0.168	1,777	0.12	467,000	0.163	761
0.13	717,000	0.221	1,585	0.13	880,000	0.177	1,558	0.13	352,000	0.176	620
0.14	632,000	0.232	1,466	0.14	731,000	0.186	1,360	0.14	271,000	0.188	509
0.15	561,000	0.243	1,363	0.15	591,000	0.196	1,158	0.15	244,000	0.193	471
0.16	496,000	0.255	1,265	0.16	472,000	0.206	972	0.16	206,000	0.201	414
0.17	430,000	0.269	1,157	0.17	387,000	0.215	832	0.17	174,000	0.207	360
0.18	391,000	0.278	1,087	0.18	313,000	0.225	704	0.18	111,000	0.225	250
0.19	357,000	0.287	1,025	0.19	245,000	0.236	578	0.19	75,000	0.246	185
0.2	322,000	0.297	956	0.2	193,000	0.248	479	0.2	68,000	0.251	171

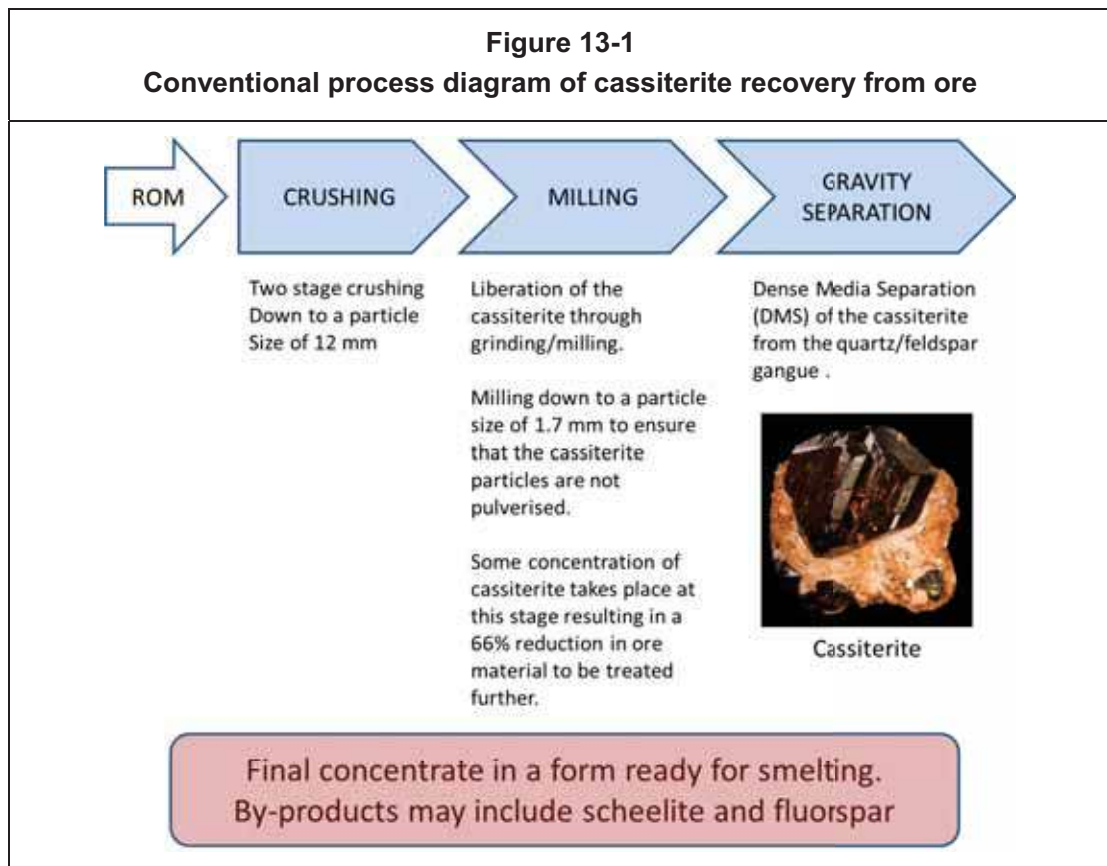
## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

No metallurgical studies have been undertaken on the project to date.

Cassiterite has a high relative density and is thus recoverable using gravity separation techniques. However, it is also relatively hard and very brittle, which must be allowed for during crushing and grinding operations prior to gravity concentration. Furthermore, cassiterite is often strongly intergrown with other minerals, and the accompanying minerals behave similarly to cassiterite during processing.

### 13.1 Gravity Concentration

Current technologies are characterized by controlled multistage size reduction of the ores and separation of the cassiterite released after each size reduction stage using sorting methods based on density. For the best recovery, cassiterite grains should be recovered at the earliest possible stage and at their largest size. The efficiency of gravity concentration processes decreases markedly once the size of the particles is reduced to below about 30 µm.



Conventional crushing and grinding methods can be used to liberate cassiterite from associated gangue materials (Figure 13-1). Different combinations of crushing and milling equipment, followed by a wide variety of gravity concentration devices for further beneficiation are used in most hard rock tin concentrators. The process would need to be tailored to the ore at Mokopane.

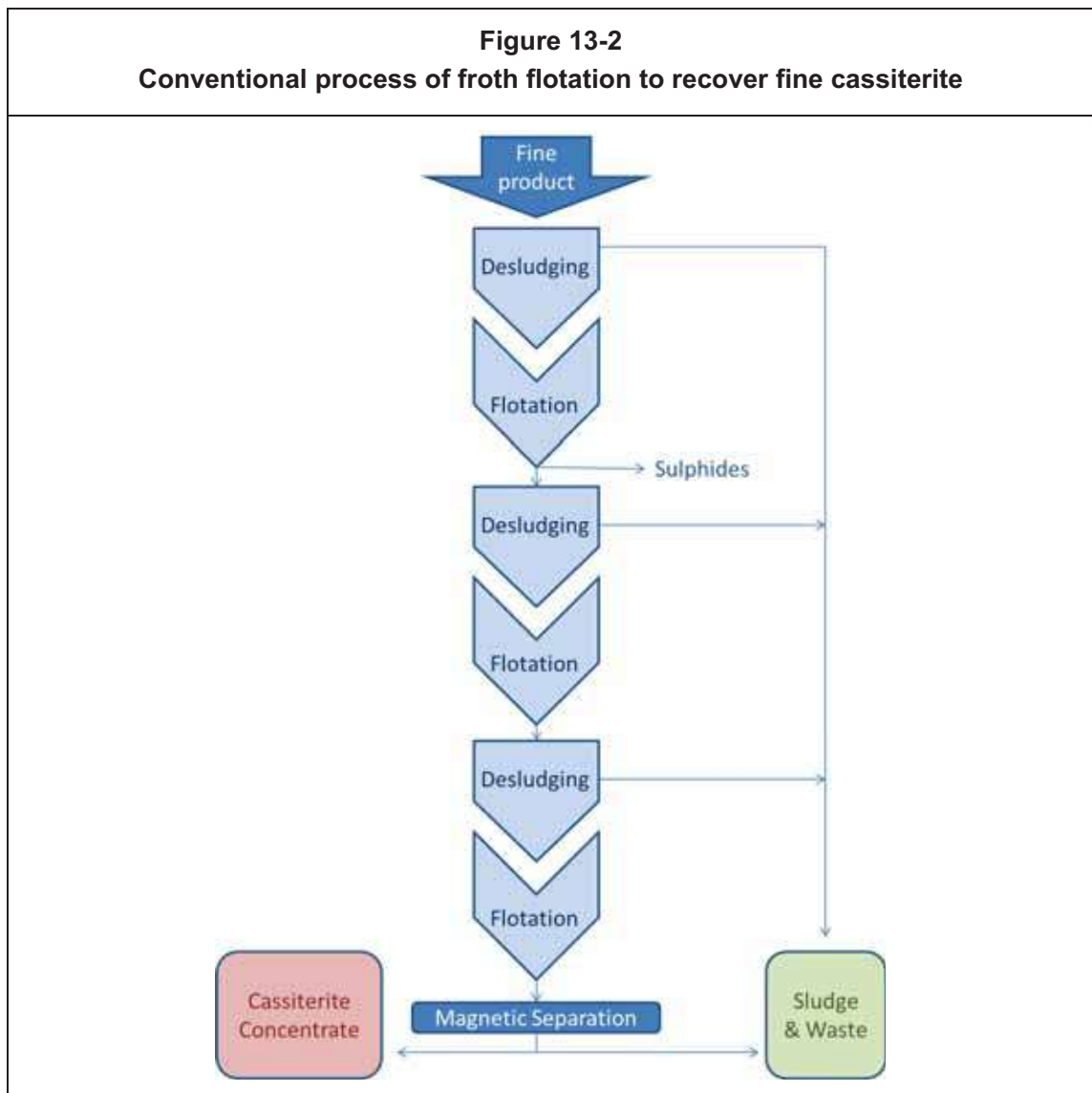
### **13.2 Froth Flotation of Fine Particles**

Very small particles (< 30  $\mu\text{m}$ ) cannot be processed to give satisfactory yields and production rates. If the degree of intergrowth of the ores requires finer grinding, the flotation method for sorting particles < 100  $\mu\text{m}$  is sometimes used. Due to its extreme brittleness, a significant amount of very fine cassiterite particles can be produced resulting in losses of tin in succeeding processing stages. Froth flotation can be used to upgrade particles less than 30  $\mu\text{m}$  but cannot treat particles less than 6  $\mu\text{m}$  in size. The less than 6  $\mu\text{m}$  particles can account for a significant proportion of the metallic tin entering the plant.

Flotation is increasingly used to sort fine-grained material and ground middlings obtained by the density-based sorting process, and has now become the preferred method for treating the most finely intergrown, complex tin ores. Flotation of cassiterite with particle sizes between 40 and 10  $\mu\text{m}$  is mainly carried out with arsenic acids.

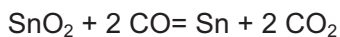
The flow diagram (Figure 13-2) shows the flotation of primary tin concentrates to remove sulphides of similar paragenesis, followed by flotation of cassiterite from the pre-concentrate and magnetic separation of paramagnetic minerals from the flotation product.

**Figure 13-2**  
**Conventional process of froth flotation to recover fine cassiterite**



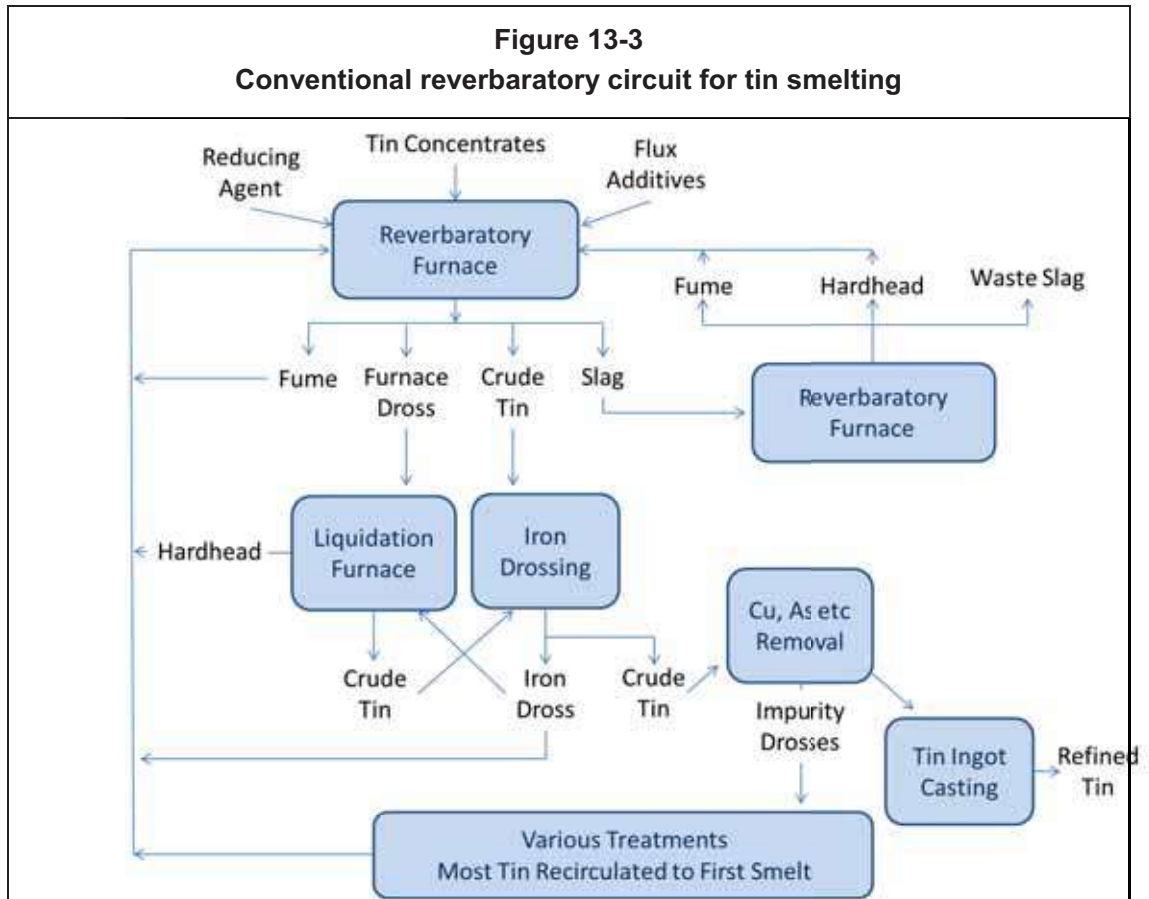
### 13.3 Smelting

Cassiterite is smelted to metal by reduction with carbon using the carbothermic reaction:



This is most commonly achieved in a reverberatory furnace (Figure 13-3). Temperatures in excess of 1200°C are required. The difficulty is that cassiterite is hardly ever produced entirely free from other minerals and many of these are reduced to metal at the same time forming alloys with the tin. It is therefore necessary to refine the tin to make it commercially useful. Fire refining involves various procedures on the molten metal. Iron is

removed by passing steam through the molten metal, arsenic and antimony are removed by additions of aluminium alloy and copper is removed with sulphur. Very impure tin can be refined by electrolysis to very high purity.



### 13.4 Characterisation of the Mokopane Ores

No testwork has been undertaken on the low grade disseminated ore and it is recommended that an ore characterisation programme be conducted on which to base a conceptual process flow sheet to recover the cassiterite. This testwork should include the following:

- Mineralogical analysis
- Geochemical analysis
- Heavy Mineral analysis
- Sieve analysis to determine the mineral sizes
- Densimetric analysis

## 14 MARKET ANALYSIS

The name tin is derived from the Old High German *zin* and the Norse *tin*. The symbol Sn comes from the Latin *stannum*. Historically tin is of major cultural importance, being an essential component of the copper alloy bronze which gave its name to the Bronze Age. The first bronze objects appeared in Egyptian tombs dating from the end of the 4th millennium BC.

Tin was one of the first metals mined and its qualities and shiny finish made it a highly sought after commodity which was traded in many parts of the world. Today it is mainly used for the production of solders (53%), for tin plating of iron and steel products (16%), in the chemicals industry (14%), whilst only 6% is used in the production of brass and bronze.

### 14.1 Tin Demand

Key issues that have affected tin demand in recent years were the ban on using lead in certain types of solder in 2006, and the local demand in China in recent years far exceeding local supply.

Tin demand saw a significant growth of approximately 10% during 2010 to a total of approximately 350 000 tonnes (Economist Intelligence Unit). Forecasts for growth in tin demand going forward remain positive in the short to medium term. According to the EIU, growth in global tin consumption will continue to increase in 2011 (3.1%) and 2012 (3.7%). Deleveraging of over-indebted consumers in Europe and the US, coupled with weak labour markets, are likely to act as a brake on the rate of growth in consumer spending, which is the key driver of tin demand. As a result, tin demand is likely level out in the medium term.

### 14.2 Tin Supply

Tin production is mainly from underground mines (56%) as secondary eluvial and alluvial resources (38%) have been depleted over the past 30 years. Only 6% of production is currently from open cast mines. China (45%) and Indonesia (30%) are the major producers, with South American countries accounting for most of the balance (Peru, 11%; Bolivia, 5%; and Brazil, 4%) and the Democratic Republic of Congo the balance (5%).

Issues that have impacted tin supply recently include the introduction of new environmental legislation in Indonesia, dwindling high grade resources and political risk in countries that do have high grade ore (e.g. DRC), and mine output falling sharply in Brazil.

The increased environmental regulatory environment in Indonesia has resulted in the closure of 18 out of 31 exporting smelters, whilst the largest producer, PT Timah, has reduced output by 20%.

Whilst DRC has the resource potential to fill a global supply deficit, tin is included in a group of 'conflict minerals' which are produced there. A new set of rules for mineral suppliers in Central Africa backed by the world's leading electronics companies came into effect on 1 April 2011 to end the trade's contribution to violence in the DRC. Mineral trade in the DRC has been a central feature of conflict in the country, with combatant groups fighting for control of mines, perpetrating abuses against local populations to ensure control, and using profits from the trade to obtain weapons and drive armed conflict. The "Conflict-Free Smelter Program" requires participating mineral processing players in the DRC and neighbouring countries to provide proof that their supply purchases do not contribute to conflict in the country by funding militia groups. The programme covers tin, tungsten, gold and coltan.

New tin mine projects are scheduled to come on stream in late 2012 and 2013, with total mineral resources of over 1 Mt of tin metal. However, assuming the world does not experience a double-dip recession and short term demand continues to grow, global tin supply is likely to remain stressed.

Despite the apparent global shortfall in supply, tin stocks on the LME have risen over the 10 months to April 2011 to approximately 19 000 tonnes.

### 14.3 Tin price

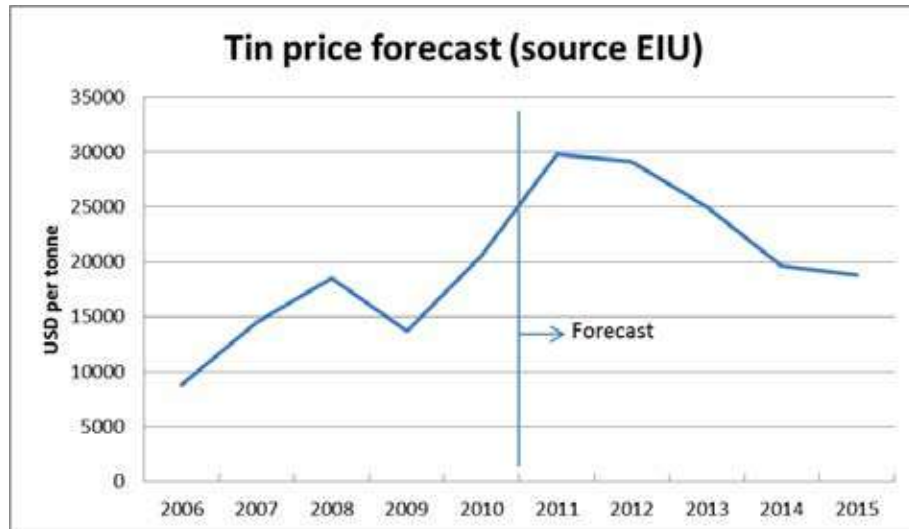
The price of tin on the LME rose from the region of USD 8 000 per tonne in 2006 to approximately USD 19 000 per tonne at the beginning of the global recession. Prices have recovered from below USD 14 000 in 2009 to over USD 33 000 per tonne in the first quarter of 2011 (Figure 14-1). This rise in price has been driven by an increased demand for solder in the electronics industry, and supply side limitations described above.

Divergent forecasts exist for the tin price going forward. Lars Steffensen, managing partner at Ebulio, is quoted as saying the metal could reach USD 50 000 a ton. "There is going to be less and less available. People will have to pay higher prices," he added. "On the supply side you have output problems, (while) consumption is strong."

The main driver for capping prices would be a slowdown in demand. Currently, only the power problems following Japan's earthquake and tsunami are expected to have any significant impact on slowing electronics production. It is possible that China will experience a disruption to the component supply chain, which could hinder tin solder demand over the coming months.



**Figure 14-1**  
**Chart of tin price with medium term forecast (source, Economist Intelligence Unit)**



Another block to higher prices would be a drop-off in investor appetite for the metal. Exchange open interest on the number of outstanding contracts on LME tin futures has risen to 20 795 lots, or 103 975 tons, from 15 992 lots, or 79 960 tons, in early September when the current price surge started. There are commodity trading funds and hedge funds with long positions, which will want to sell at some point. Their sales volumes cannot be absorbed by the market over a short period without a significant price correction to the downside.

On balance, the tin price is likely to remain at or near current levels over the next two years, beyond which, new production is likely to bring prices down slightly. Figure 14-1 shows the forecast tin prices for 2011 and 2012 according to the EIU.



## **15 ENVIRONMENTAL CONSIDERATIONS**

Greenhills submitted an Environmental Impact Assessment (EIA) and an Environmental Management Plan (EMP) as part of the application process for their Prospecting Right. These were accepted by the Department of Minerals and Energy.

The property has a history of mining and MSA is not aware of any environmental risks associated with the project. However, MSA has not undertaken an independent environmental assessment of the property.

## 16 INTERPRETATION AND CONCLUSIONS

The Mokopane Tin Project is a property comprising six farms, four of which report significant historical tin mining with a total of nearly 22 000 tonnes of tin metal produced from a series of high grade mineralised pipes and areas of lower grade disseminated mineralisation.

The high grade mineralisation has mostly been mined out. However, at least two areas of lower grade disseminated tin mineralisation remain on the farms Groendoorn 225KR and Groenfontein 227KR. One of these deposits occurs in the Bobbejaankop Granite and has not yet been investigated in detail. The second occurs in the overlying Lease Granite and has been effectively sampled during drilling campaigns undertaken during the 1970s, and verified and enhanced during 2011. Measured, Indicated and Inferred Mineral Resources have been defined in the Lease Granite occurrence.

### 16.1 Project Risks

Because this project is situated in South Africa, it would be subject to exchange risk as the Rand / US Dollar exchange rate fluctuates. Operating costs would be in Rand, but the sales revenue for tin produced would be based on an international pricing model.

The deposit that has been defined is relatively small and low grade. This provides little margin should negative factors impact a future mine.

### 16.2 Project Opportunities

The tin price is at an all-time high and the fundamentals suggest that the price will remain strong in at least the medium term. The Mineral Resource that has been defined occurs at shallow depth. The stripping ratio and mining costs would therefore be relatively low. Further targets have been identified on the property that have the potential to enhance the Mineral Resource base.

### 16.3 Recommendations

The 2011 drilling programme was successful in determining Measured and Indicated Mineral Resources. It is recommended that a scoping study is undertaken on the Mineral Resource to determine whether a proportion of the Mineral Resources can be mined economically. A preliminary metallurgical study should be undertaken to establish the grain size of the cassiterite and its recoverability.

There is potential to increase the defined Mineral Resources by drilling the low grade disseminated deposit that occurs in the Bobbejaankop Granite on the farm Groendoorn 225KR on the boundary with the farm Zaaiplaats 223KR.

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## 18 DATE AND SIGNATURE PAGE

The undersigned, Dr Leon Liebenberg, contributed to sections 1-19 of this technical report, titled Independent Technical Report on the Mokopane Tin Project, South Africa, with an effective date of 26 September 2011, in support of the public disclosure of technical aspects of the Mokopane Tin Property. The format and content of this report are intended to conform to the JORC Code.

I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of this Technical Report.

Signed,

A handwritten signature in black ink, appearing to read 'Dr. Liebenberg', is written over a light blue circular stamp.

.....  
Name: Dr Leon Liebenberg

Date: 26 September 2011  
-----

## 19 GLOSSARY OF TECHNICAL TERMS

<i>alkaline rock</i>	an igneous rock containing an excess of sodium and or potassium
<i>alluvial</i>	Transported and deposited in a river system, e.g. diamonds eroded from kimberlites and deposited in river gravel.
<i>Archaean</i>	The oldest rocks of the Precambrian era, older than about 2 500 Ma.
<i>basement</i>	The igneous and metamorphic crust of the earth, underlying sedimentary deposits.
<i>bedrock</i>	the first hard and solid rock underlying soil or unconsolidated overburden
<i>core drilling</i>	Method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit.
<i>colluvium</i>	sediment transported downslope by gravity; usually proximal to its source
<i>diamond drilling</i>	synonymous with <i>core drilling</i>
<i>dyke</i>	A vertical or near vertical sheet of igneous rock, the widths of which may range from centimeters to hundreds of meters. One of the typical modes of occurrence of kimberlite, in the case of which widths are usually narrow, less than 2 m.
<i>EIA</i>	Environmental Impact Assessment.
<i>eluvium</i>	sediment derived from the physical and/or chemical decomposition of the underlying bedrock.
<i>EMP</i>	Environmental Management Plan.
<i>Equator Principles</i>	A set of voluntary governance rules for managing social and environmental risk in project finance (see <a href="http://www.equator-principles.com">www.equator-principles.com</a> ).
<i>facies</i>	The sum of the lithological (and palaeontological) characters of a particular rock.
<i>fault</i>	A fracture or fracture zone, along which displacement of

	opposing sides has occurred.
<i>Ga</i>	Giga years (1 Ga = 1,000 million years)
<i>geophysical surveys</i>	Instrumental surveys measuring small variations in the earth's magnetic field, gravity field or electrical conductivity (in addition to some other properties) related to local variations in rock type. Widely used to discover kimberlite pipes. Magnetic and some electrical methods can be carried out from an aircraft.
<i>gneiss</i>	A coarse grained, banded, high grade metamorphic rock.
<i>GPS</i>	Global Positioning System. A satellite based navigation system able to give real time positions to approx $\pm 5$ m in X and Y using simple hand held instruments.
<i>ha</i>	Hectare = 10,000 m <sup>2</sup> . A common unit for expressing the surface area of a kimberlite pipe.
<i>Indicated Resource</i> <i>(Indicated Mineral Resource)</i>	An Indicated Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed. (CIM definition).
<i>Inferred Resource</i> <i>(Inferred Mineral Resource)</i>	An Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. (CIM definition).
<i>isotope dating</i>	A method of dating rocks by quantifying the relative ratio of isotopes.
<i>joints</i>	Regular planar fractures or fracture sets in massive rocks, usually created by unloading, along which no

	relative displacement has occurred.
<i>kriging</i>	A mathematical technique which uses spatial statistics to calculate estimations of mineral resources.
<i>limestone</i>	A sedimentary rock containing at least 50% calcium or calcium-magnesium carbonates.
<i>lineament</i>	A significant linear feature of the earth's crust.
<i>loam sampling</i>	Sampling the soil profile to recover resistant minerals. In the case of diamond exploration, loam sampling is intended to recover kimberlite indicator minerals.
<i>Ma</i>	Million years.
<i>mafic</i>	Descriptive of rocks composed dominantly of magnesium and iron rock-forming silicates.
<i>magmatic</i>	Rock formed from crystallization of molten magma; an igneous rock. A descriptive of some kimberlite types which have crystallized without exploding. (Compare <i>volcaniclastic</i> kimberlite).
<i>magnetic survey</i>	A geophysical survey which measures variations in the earth's magnetic field caused by differences in the magnetic susceptibilities of underlying rock. Kimberlite may be detected by this method, as its susceptibility may be higher or lower than surrounding rock types.
<i>Measured Resource</i> <i>(Measured Mineral Resource)</i>	A Measured Mineral Resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity. (CIM definition).
<i>metamorphism</i>	Alteration of rock and changes in mineral composition,

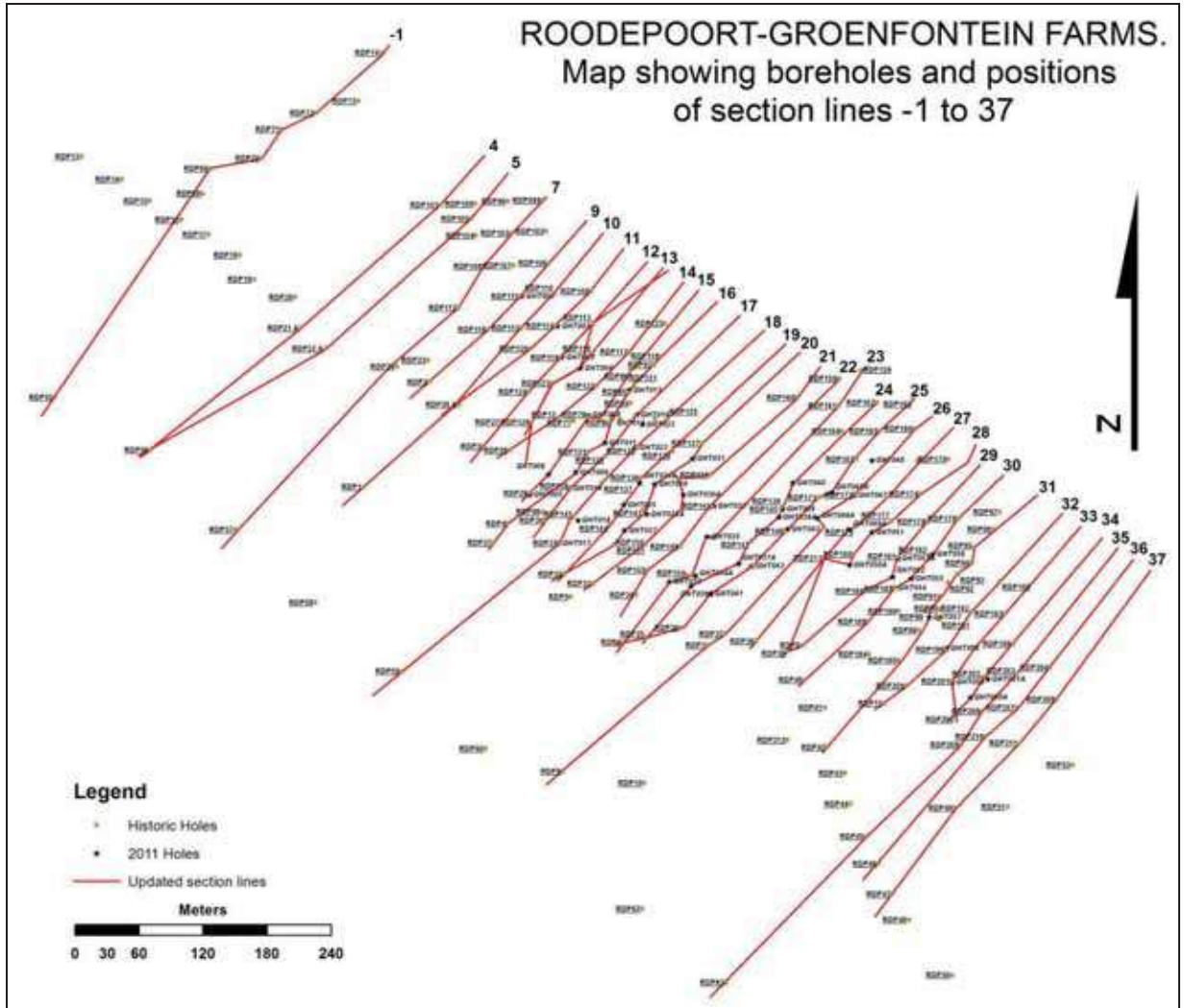


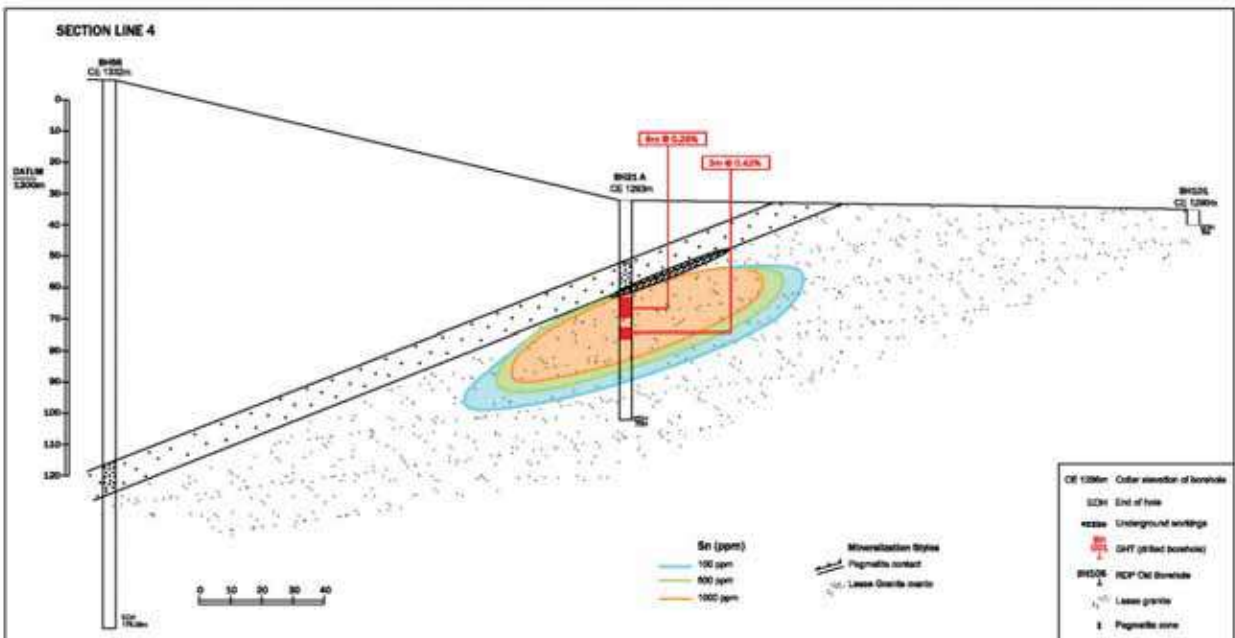
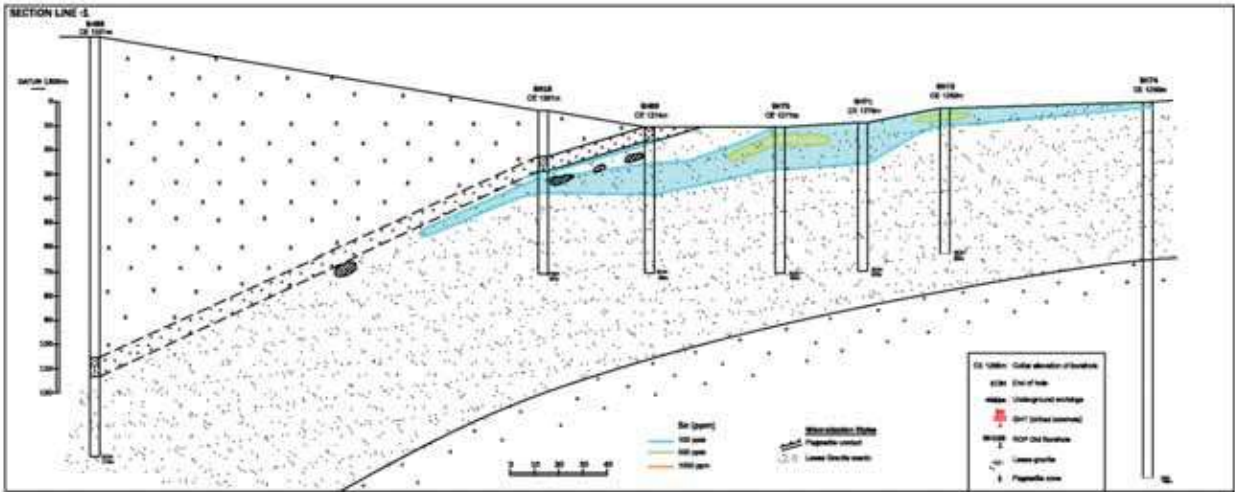
	most generally due to increase in pressure and/or temperature.
<i>mobile belt</i>	An elongate belt in the earth's crust, usually occurring at the collision zone between two crustal blocks, within which major deformation, igneous activity and metamorphism has occurred.
<i>orogeny</i>	A deformation and/or magmatic event in the earth's crust, usually caused by collision between tectonic plates.
<i>Percussion drilling</i>	Drilling by means of an air hammer which breaks the rock into chips which are brought to surface by air circulation.
<i>Probable Reserve (Probable Mineral Reserve)</i>	A Probable Mineral Reserve is the economically mineable part of an Indicated, and in some circumstances a Measured Mineral Resource, demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. (CIM Definition)
<i>Proven Reserve (Proven Mineral Reserve)</i>	A Proven Mineral Reserve is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified. (CIM Definition).
<i>Proterozoic</i>	An era of geological time spanning the period from 2 500 Ma to 545 Ma before present.
<i>PL</i>	Prospecting Licence
<i>RC drilling</i>	Reverse circulation drilling. A percussion drilling technique in which the sample is brought to surface by air and/or water through the centre of the drill pipe. Used when accurate sampling is required as the method minimizes cross contamination of samples.
<i>schist</i>	A crystalline metamorphic rock having a foliated or parallel structure due to the recrystallisation of constituent minerals.

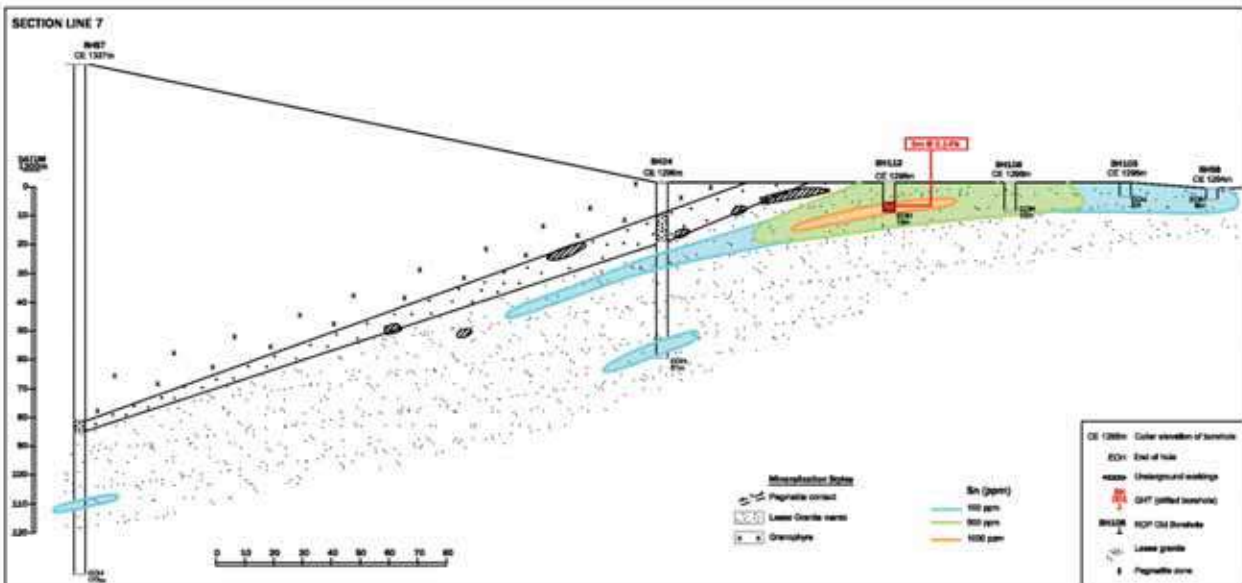
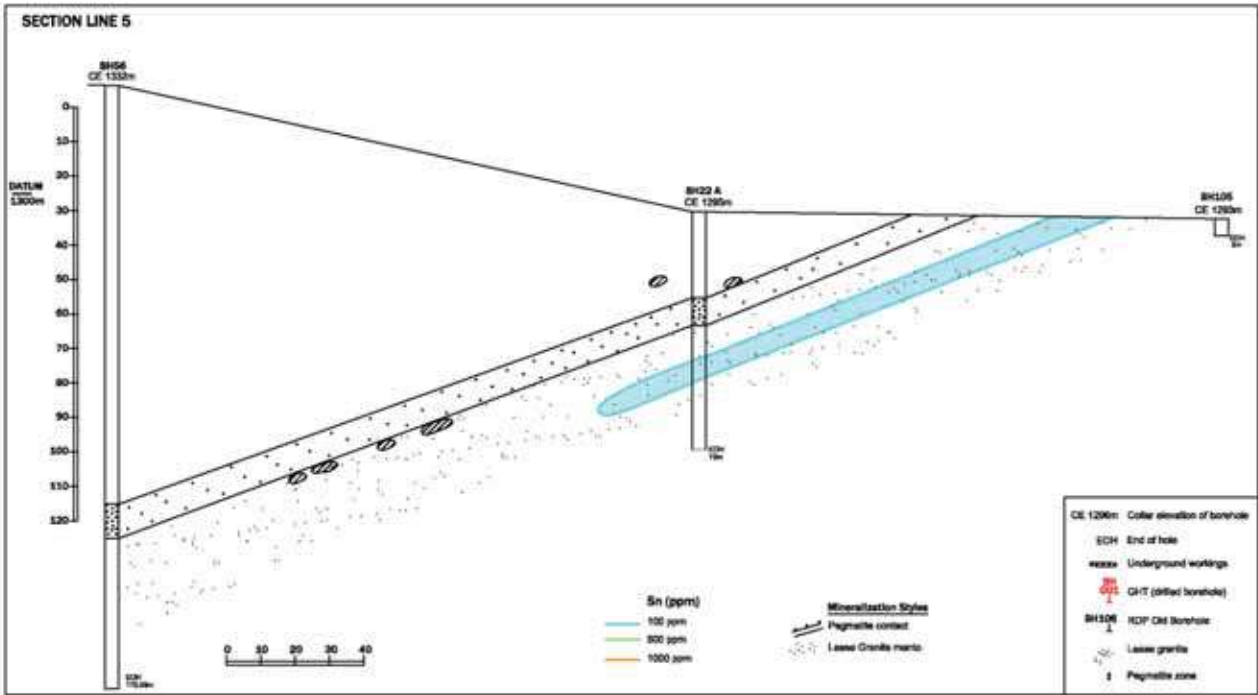
<i>SAMREC</i>	The South African code for the reporting of exploration results committee
<i>strike</i>	Horizontal direction or trend of a geological structure.
<i>tonne</i>	A metric tonne, 1,000 kg
<i>tectonic</i>	Pertaining to the forces involved in, or the resulting structures of, movement in the earth's crust.
<i>ultramafic</i>	Igneous rocks consisting essentially of ferromagnesian minerals with trace quartz and feldspar.
<i>variogram</i>	In spatial statistics, a graph which relates the variance of the difference in value between pairs of samples to the distance between them. Allows the weighting of a sample value in terms of its distance from the point where an estimate of sample value is required.

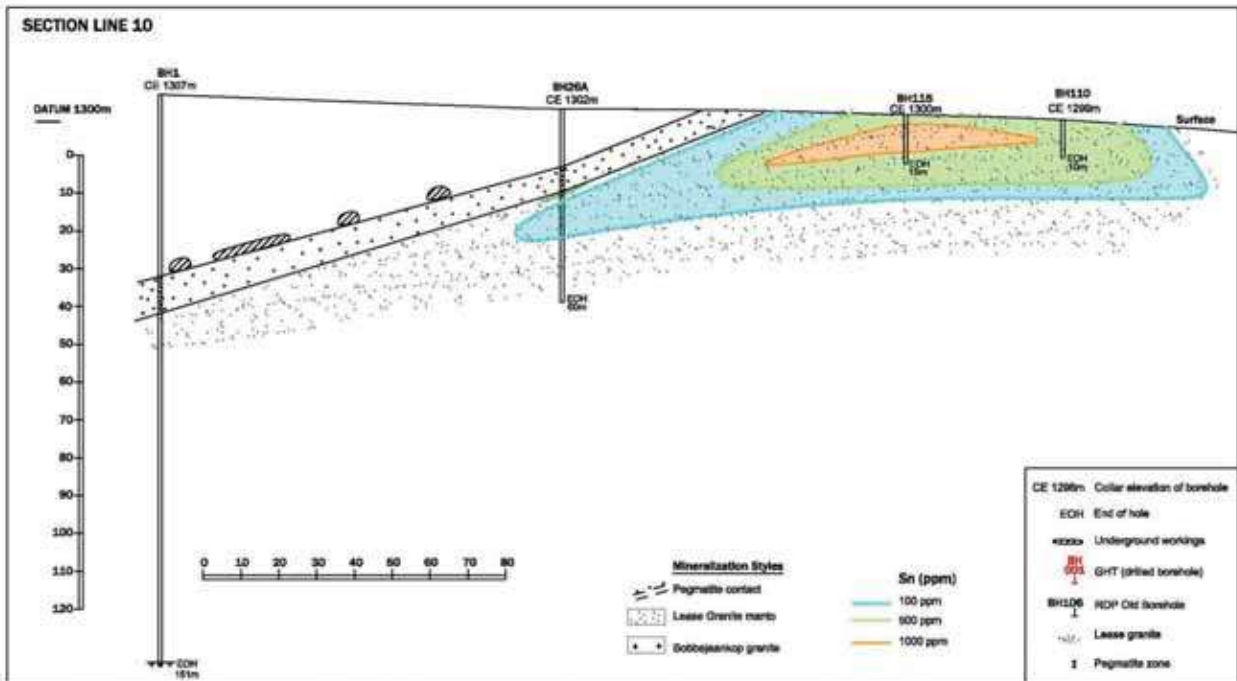
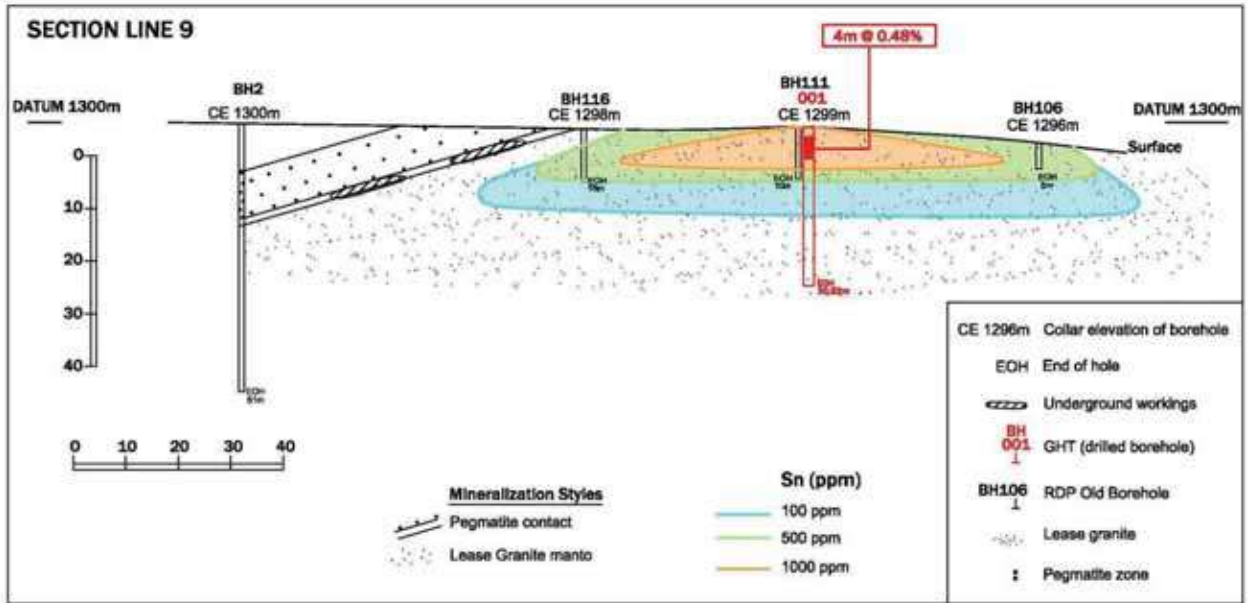
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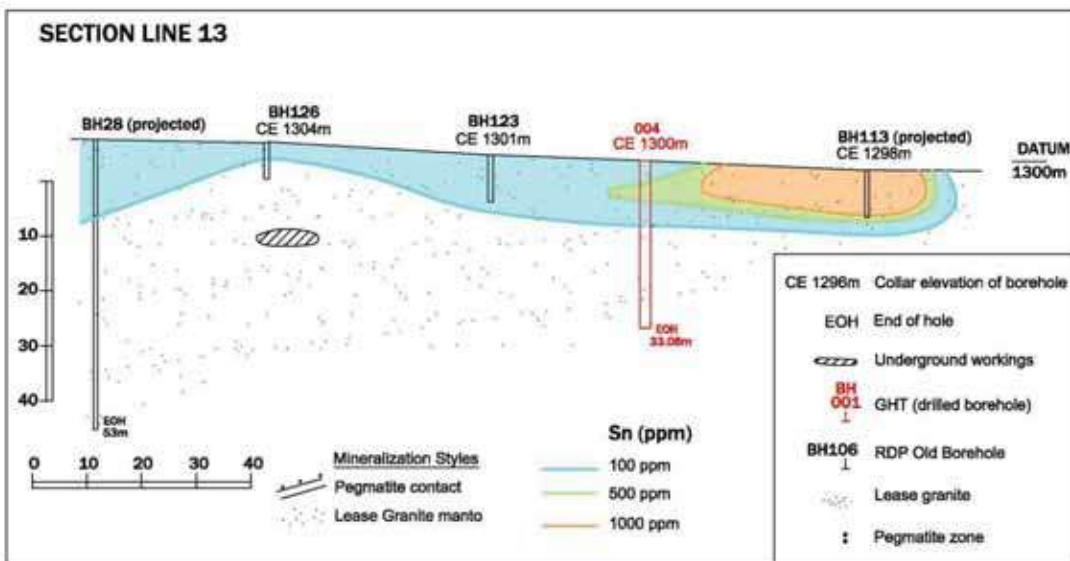
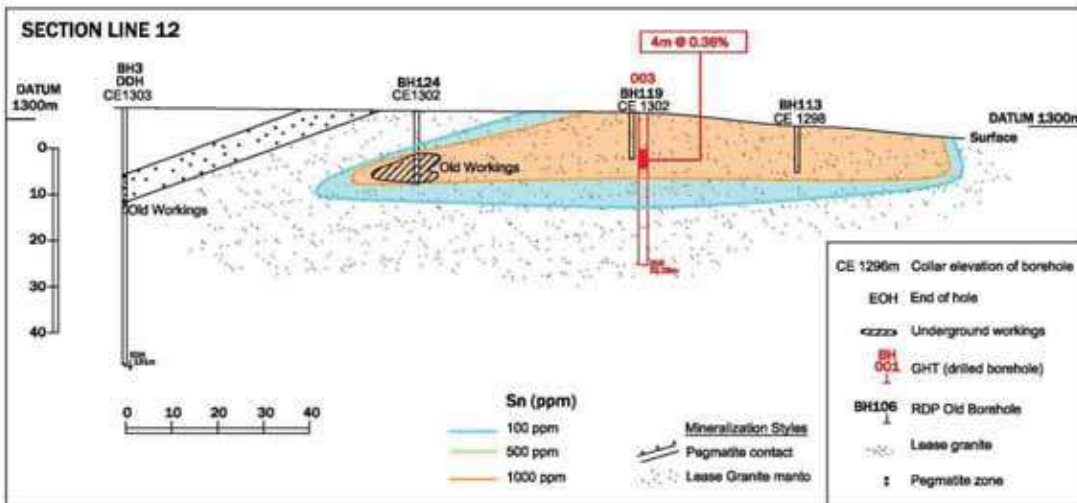
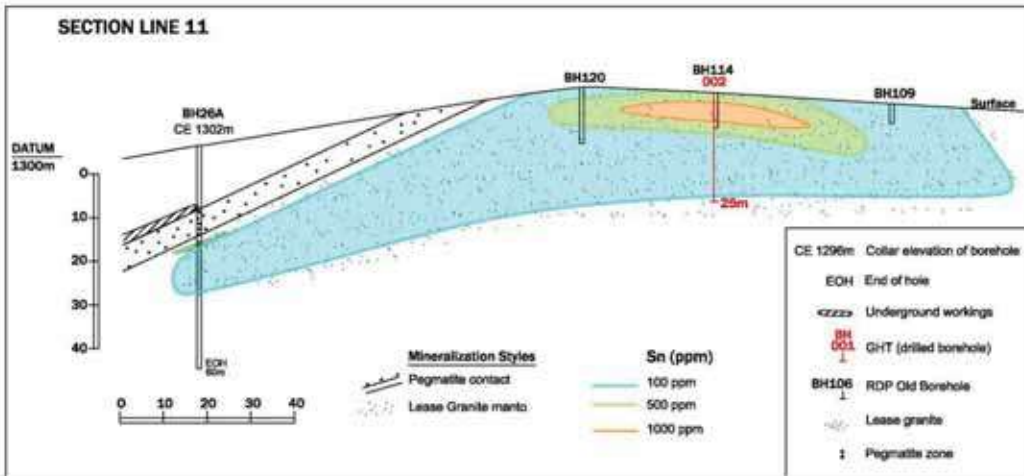
Geological sections of the Mokopane Tin Project Groenfontein mineral resource

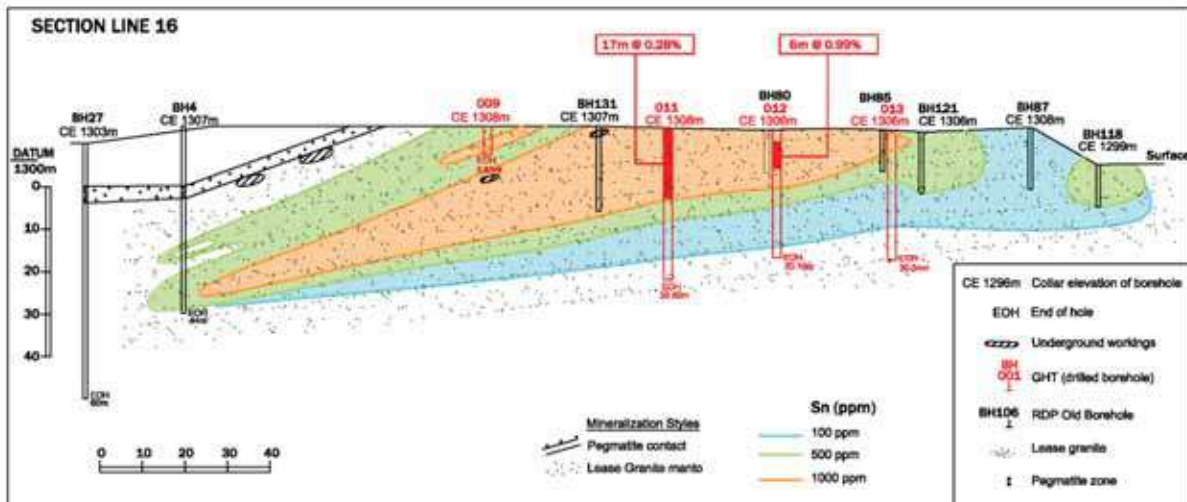
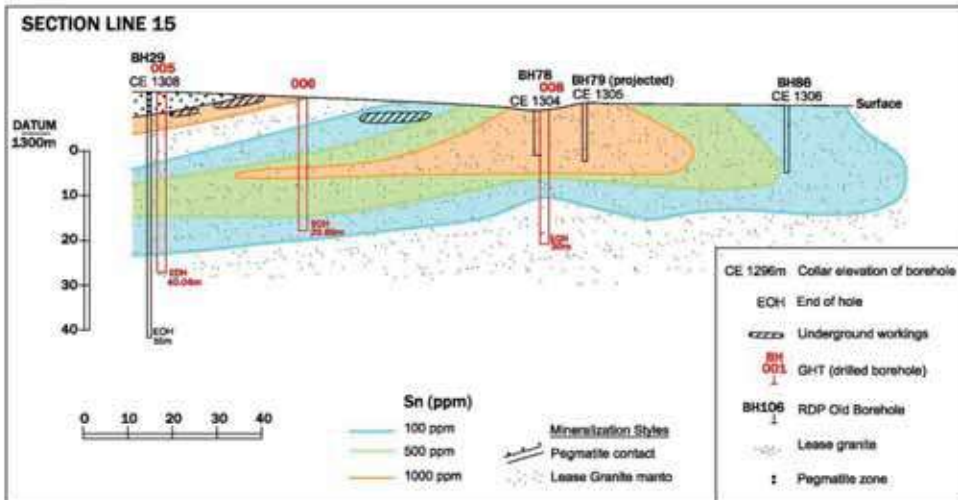
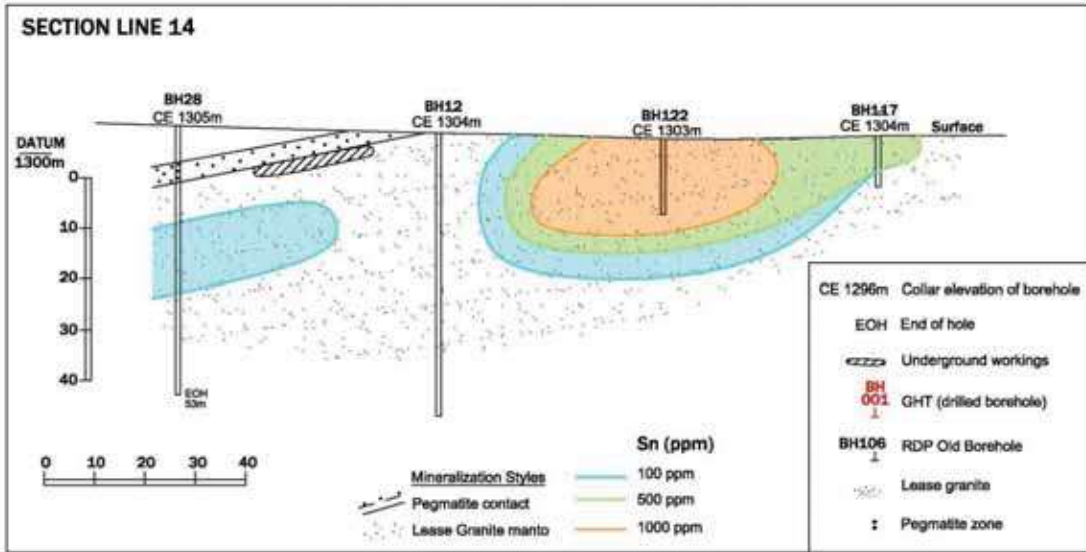




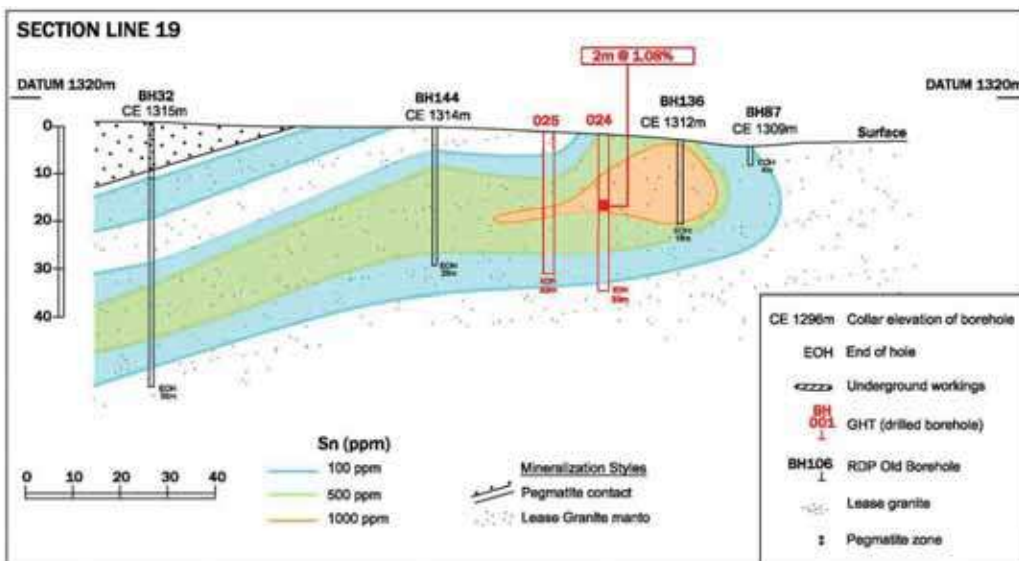
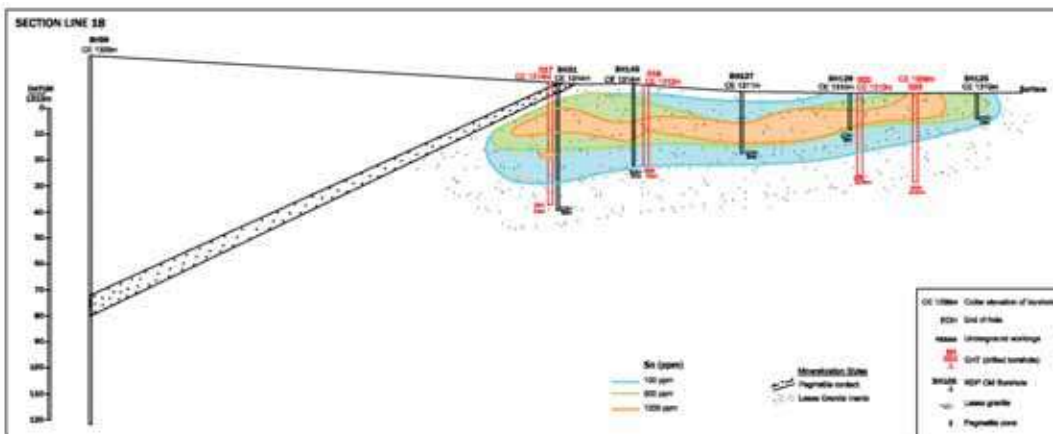
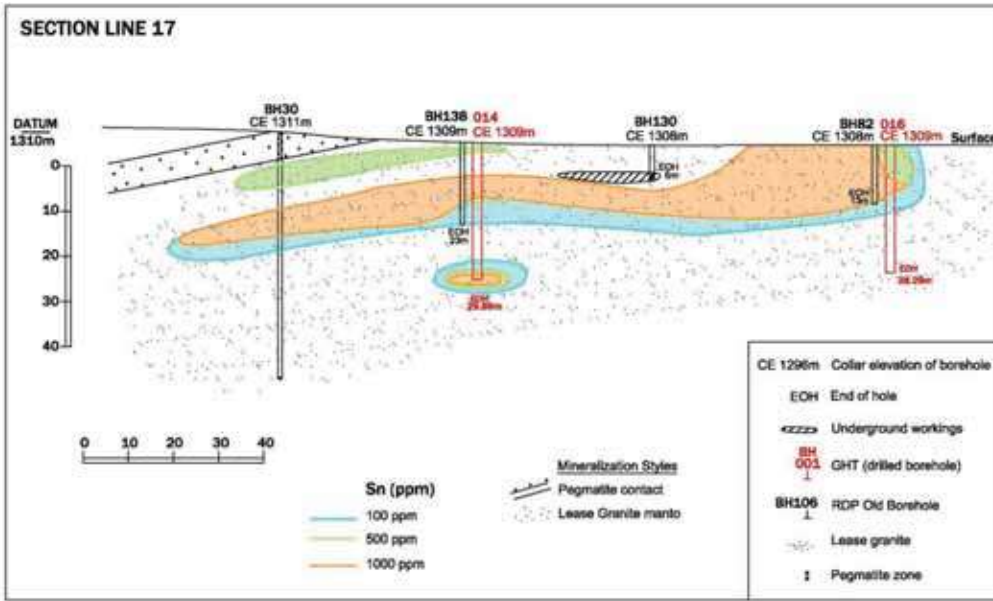


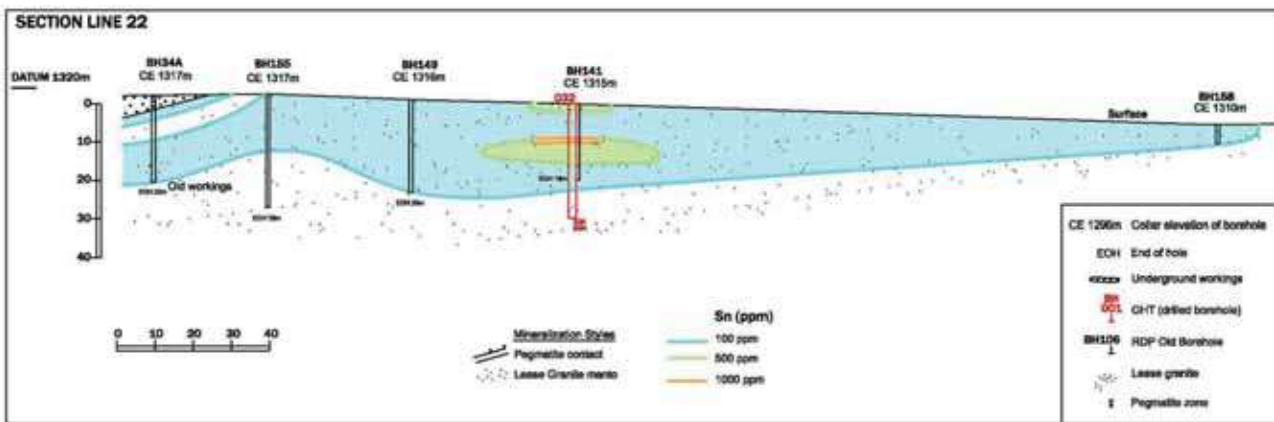
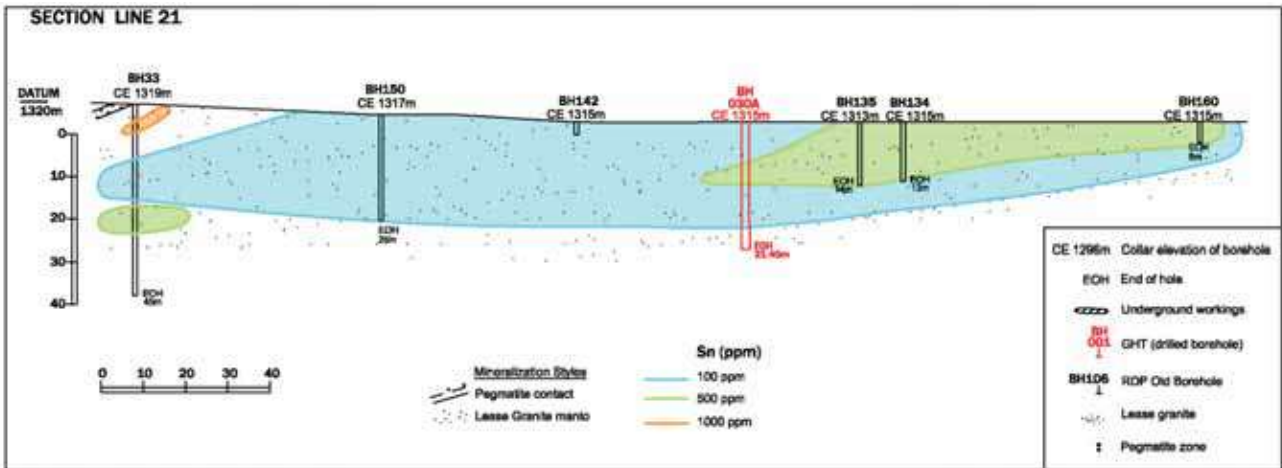
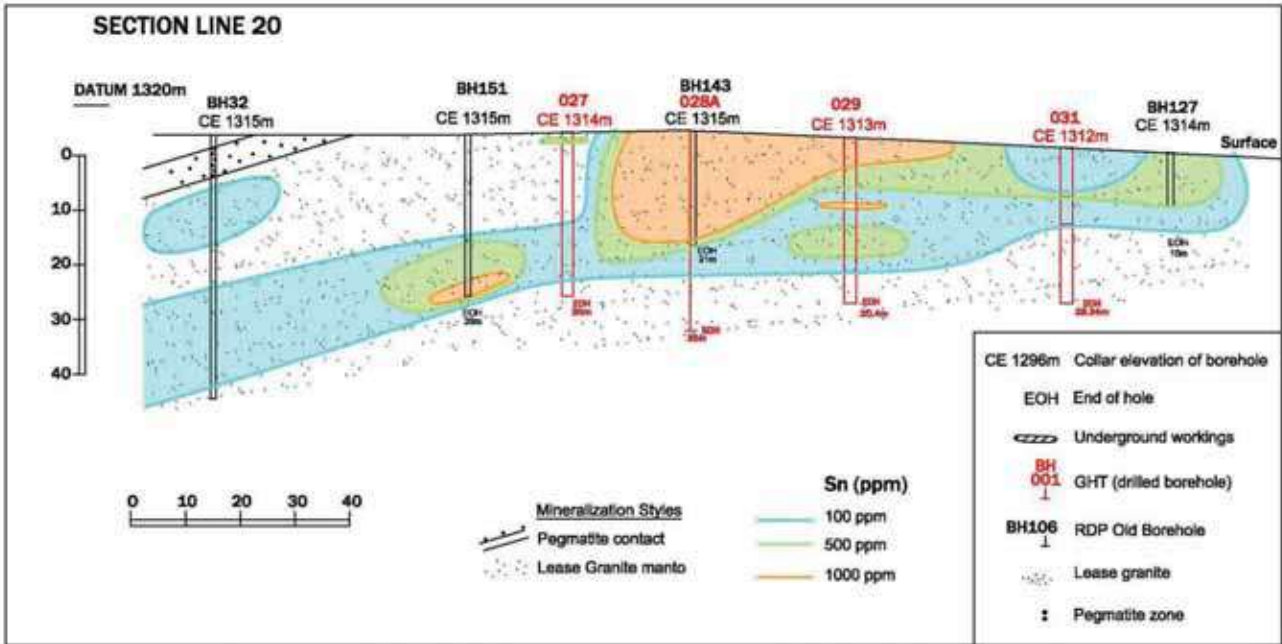


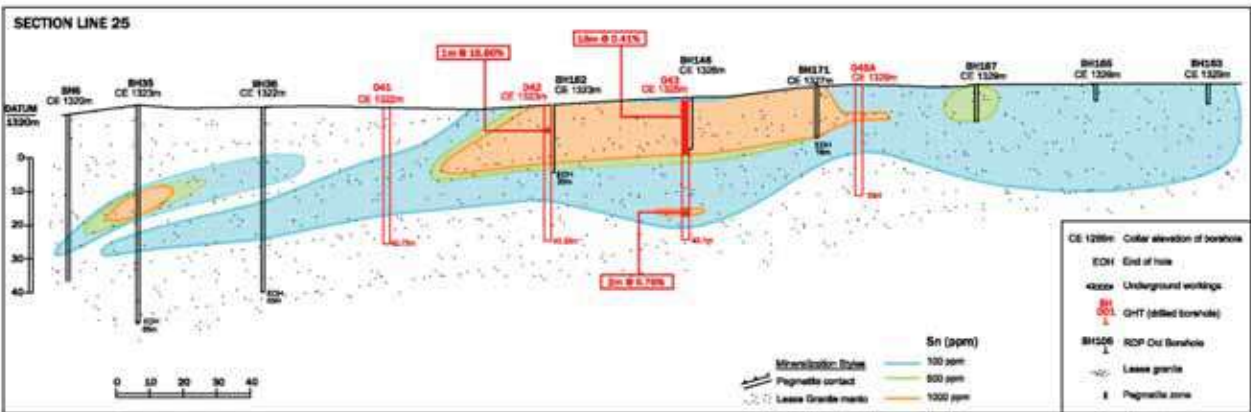
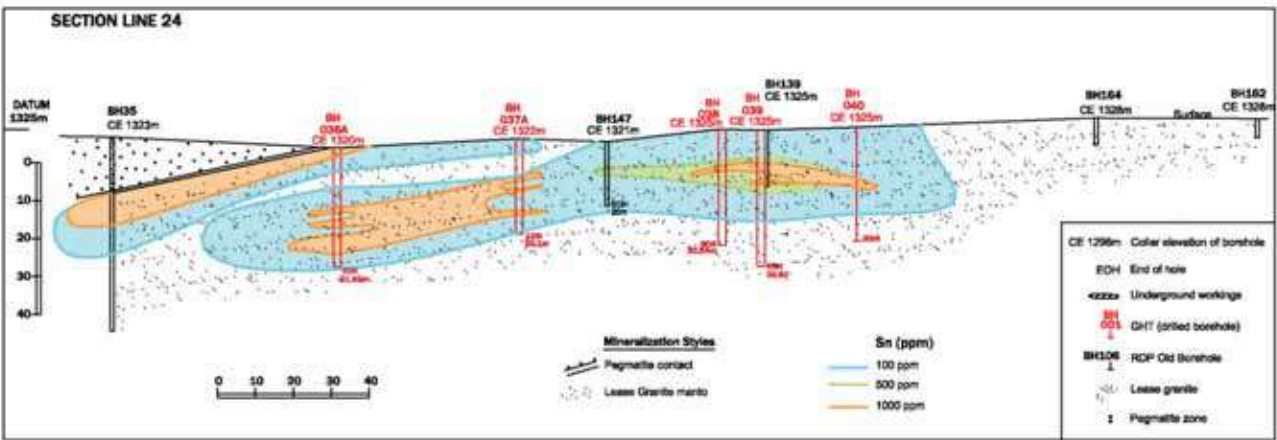
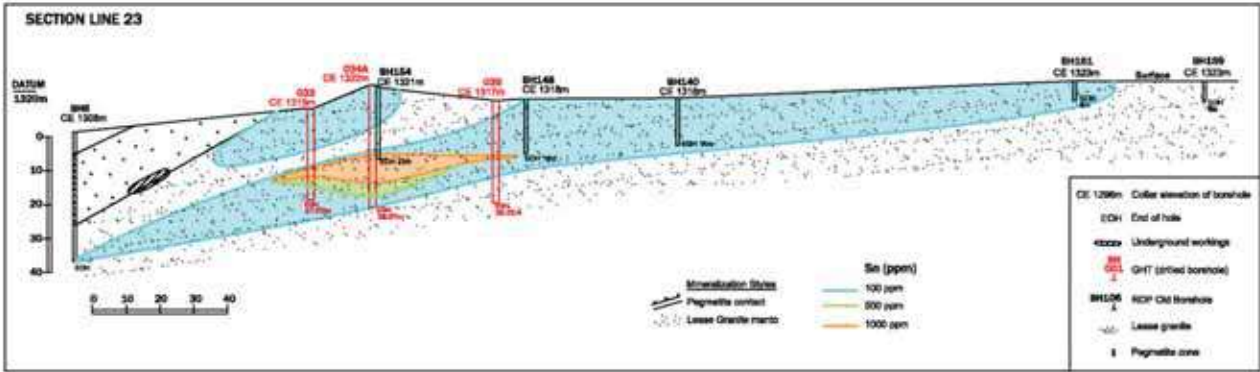


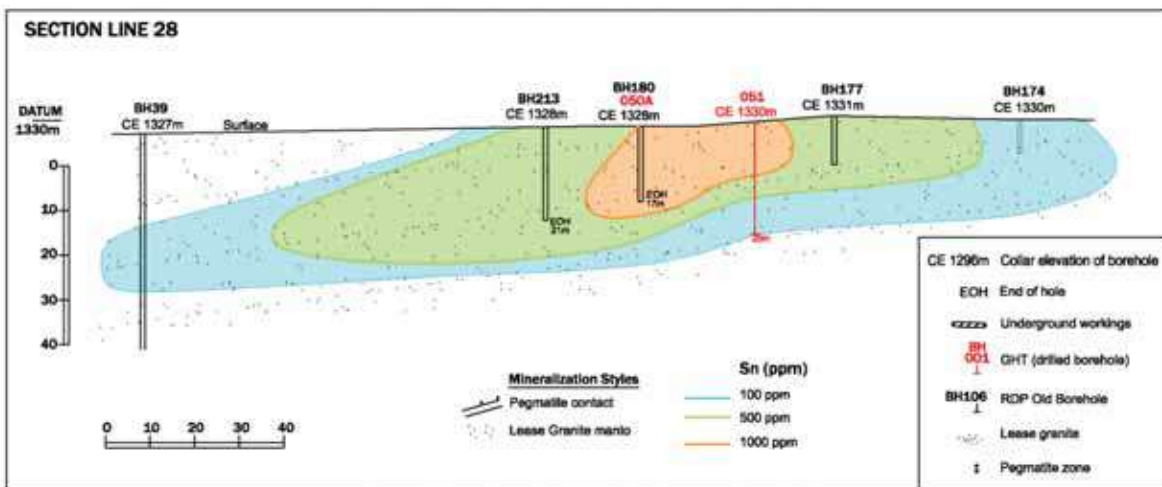
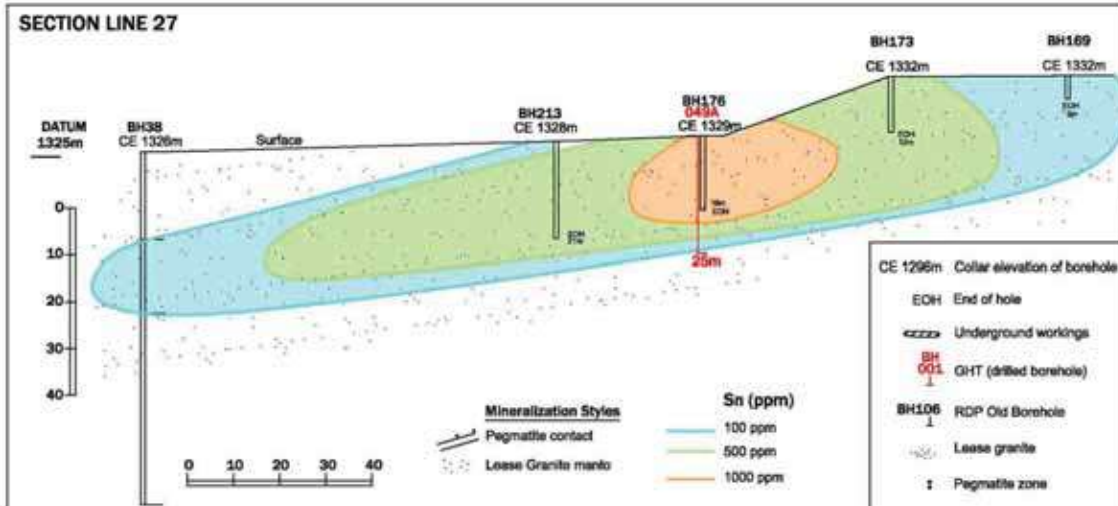
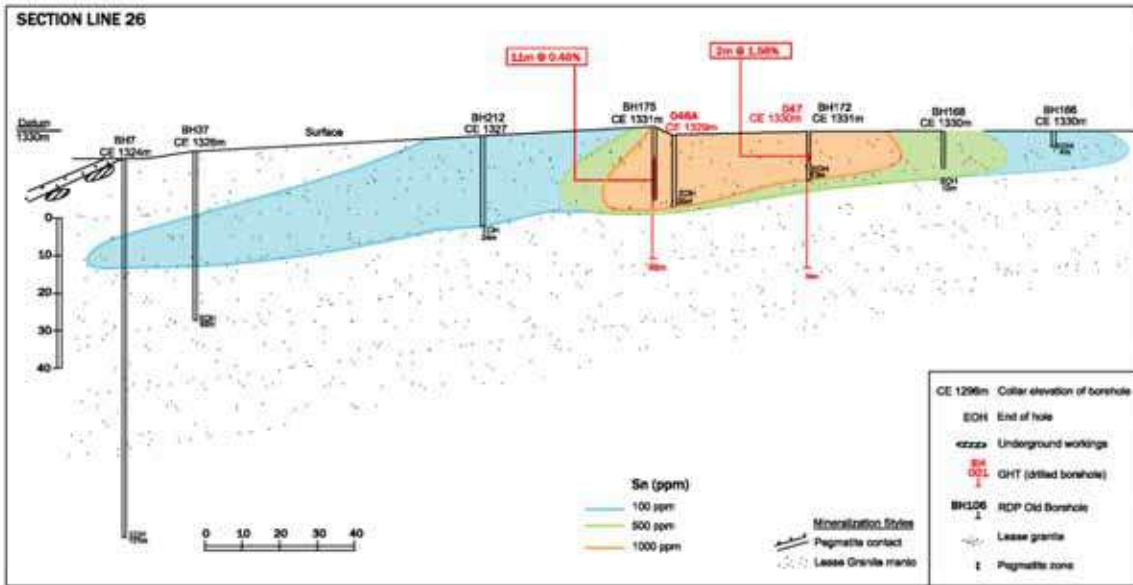


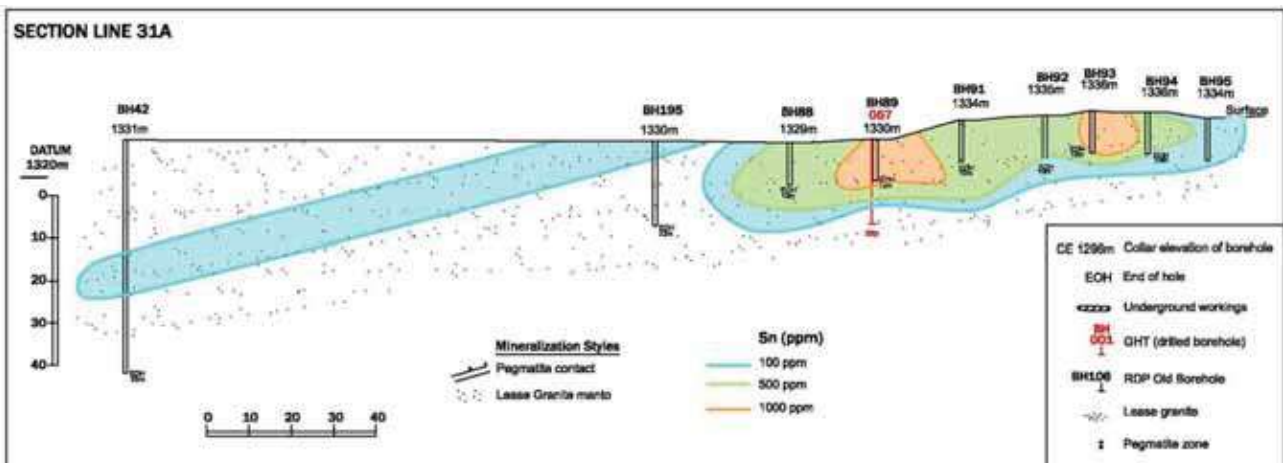
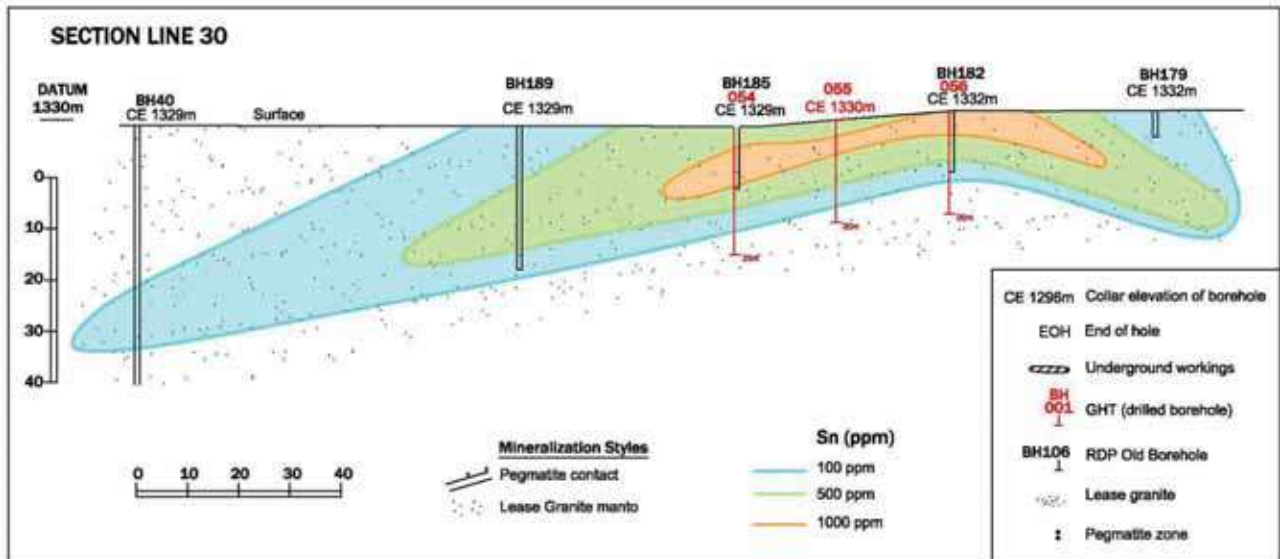
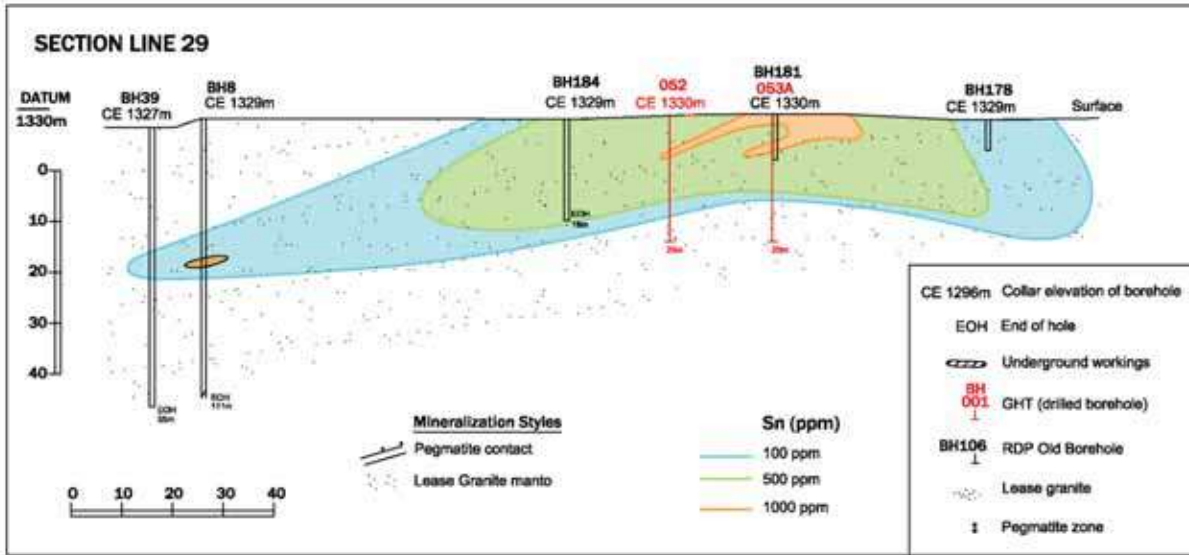


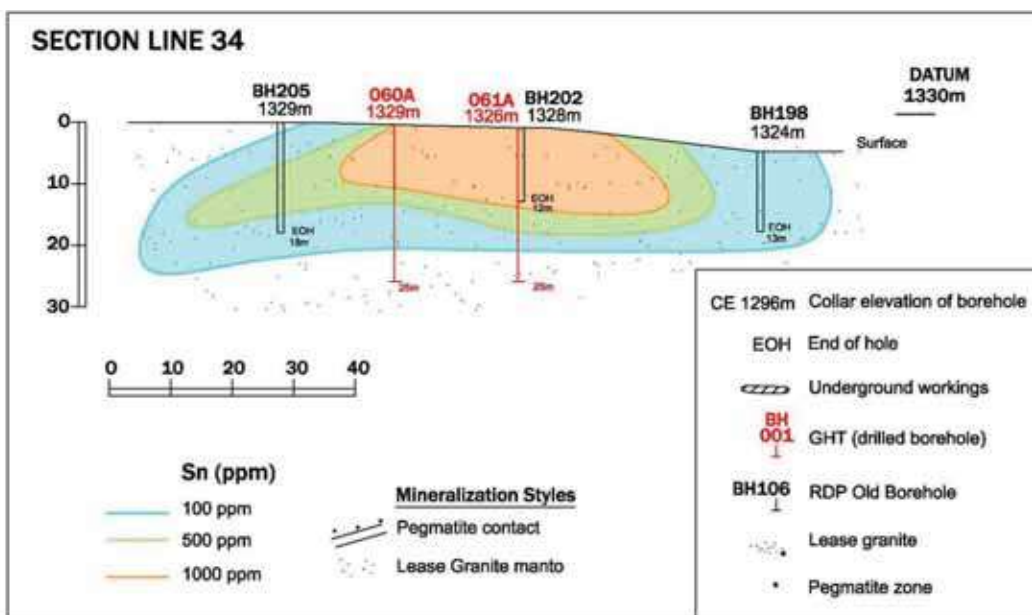
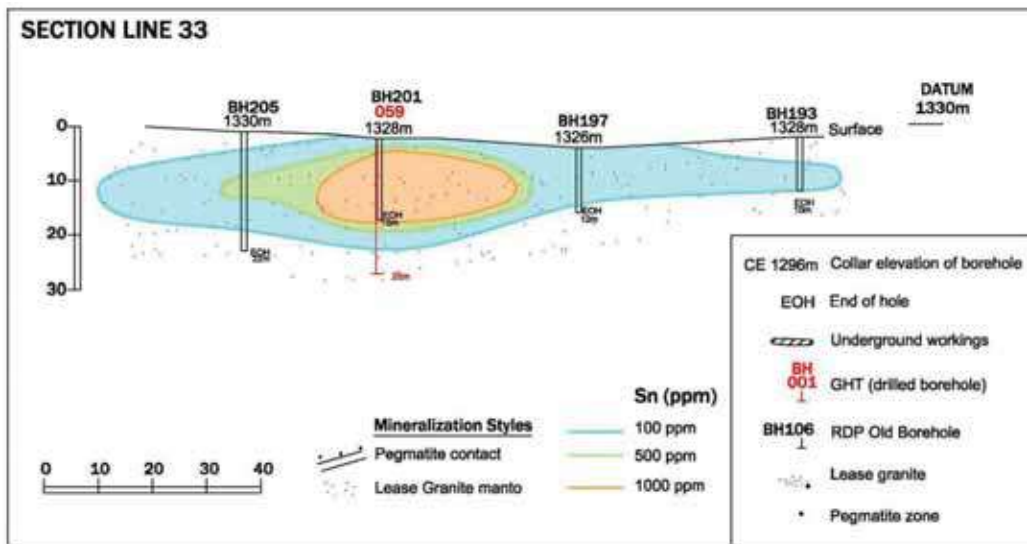
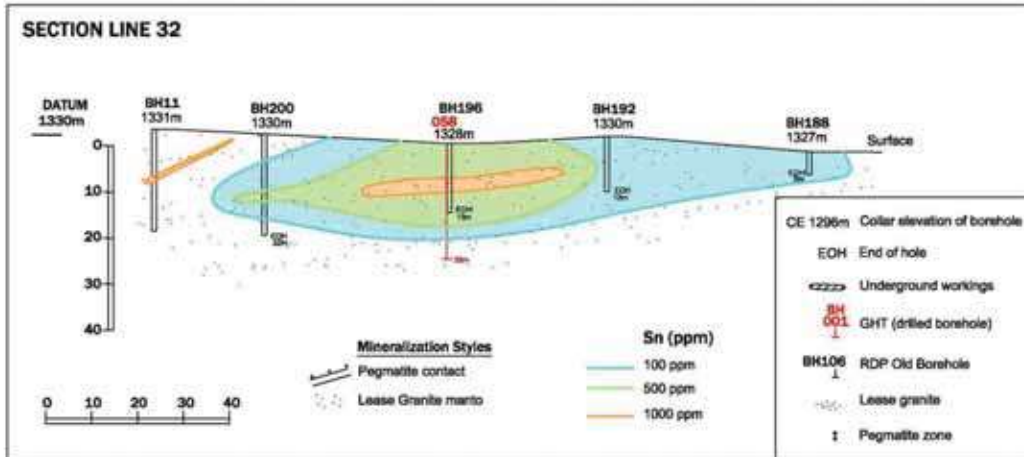


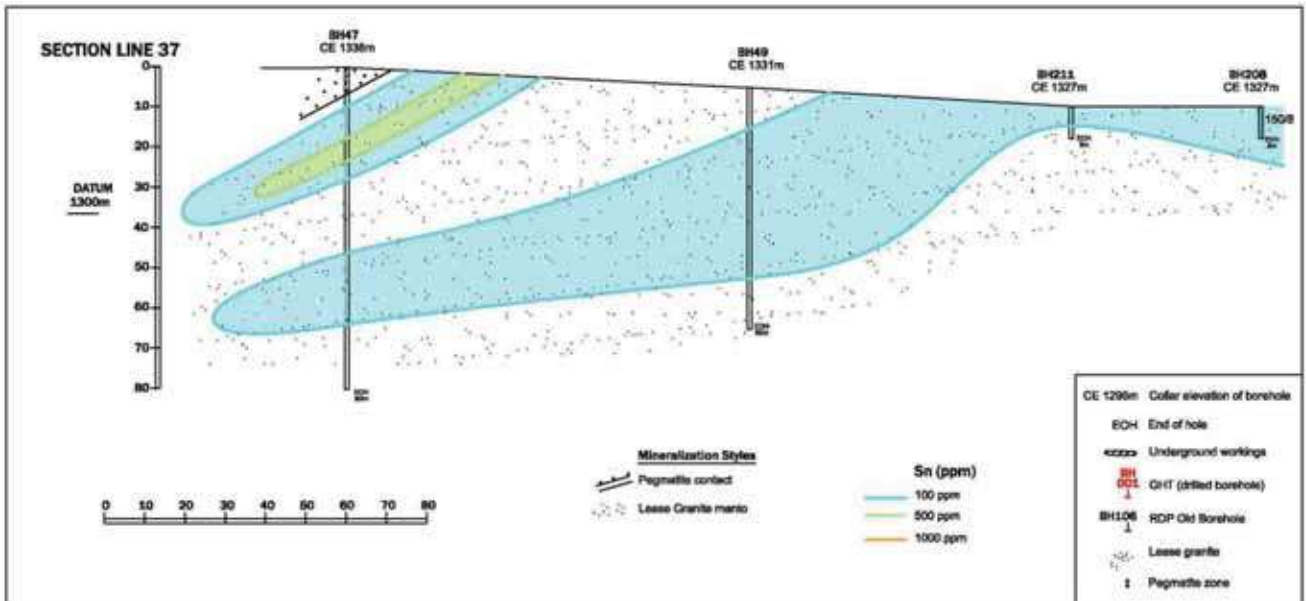
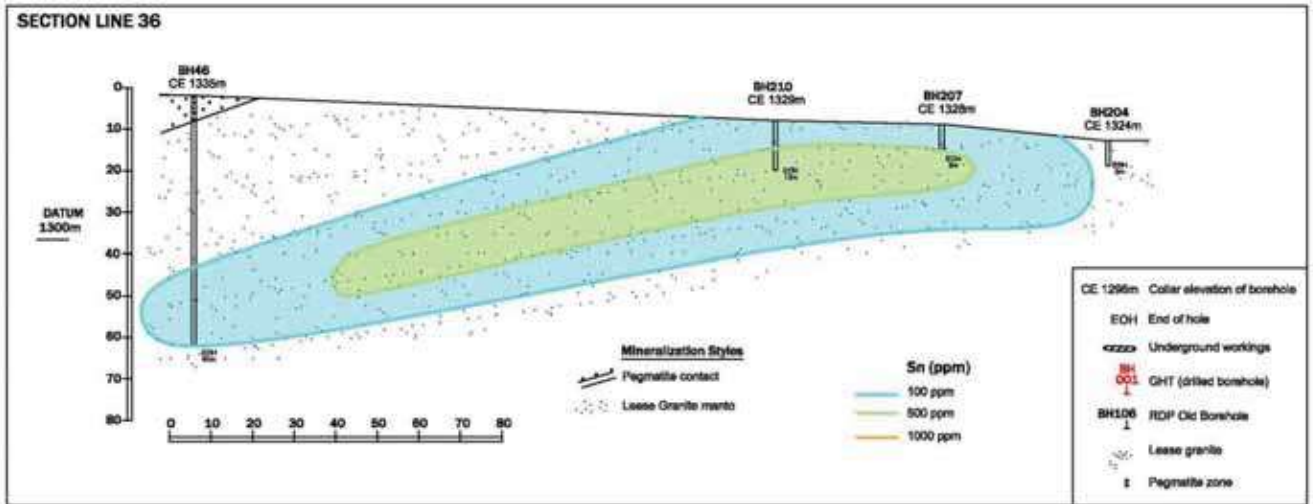
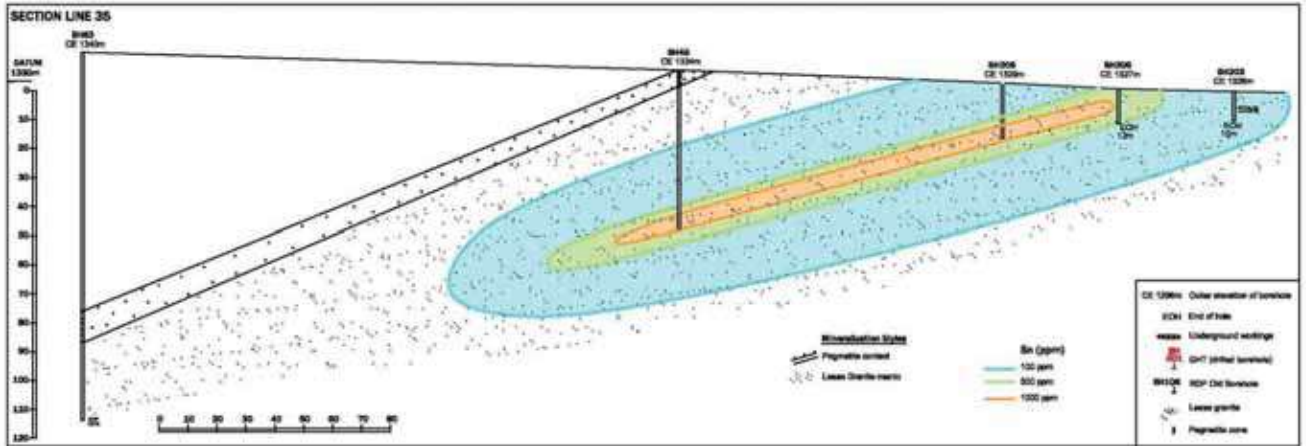












## **PART VII**

### **FINANCIAL INFORMATION ON THE GROUP**

Part VII of this document contains the following financial information:

#### **Greenhills Group**

Section A – Accountants Report on the historical financial information of the Greenhills Group (Section B)

Section B – Historical financial information of the Greenhills Group for the period from incorporation to 28 February 2011

Section C – Review report on the unaudited interim financial information of the Greenhills Group (Section D)

Section D – Unaudited interim financial information of the Greenhills Group for the six months ended 31 August 2011

#### **Bushveld Group**

Section E – Accountants Report on the historical financial information of the Bushveld Group (Section F)

Section F – Historical financial information of the Bushveld Group for the period from incorporation to 28 February 2011

Section G – Review report on the unaudited interim financial information of the Bushveld Group (Section H)

Section H – Unaudited interim financial information of the Bushveld Group for the six months ended 31 August 2011

#### **Pro Forma**

Section I – Unaudited pro forma statement of net assets



## **SECTION A – ACCOUNTANTS’ REPORT ON THE HISTORICAL FINANCIAL INFORMATION OF THE GREENHILLS GROUP**

The following is the full text of a report on Greenhills Resources Limited from Baker Tilly Corporate Finance LLP, the Reporting Accountants, to the Directors of Bushveld Minerals Limited.



**BAKER TILLY**

25 Farringdon Street  
London EC4A 4AB  
www.bakertilly.co.uk

The Directors  
Bushveld Minerals Limited  
18-20 Le Pollet  
St Peter Port  
Guernsey  
GY1 1WH

23 March 2012

Dear Sirs

### **Greenhills Resources Limited and its subsidiary undertakings (together, the “Greenhills Group”)**

We report on the Greenhills Group historical financial information set out Section B of Part VIII of this document. Greenhills Group’s historical financial information has been prepared for inclusion in the admission document dated 23 March 2012 (“Admission Document”) of Bushveld Minerals Limited (the “Company”) on the basis of the accounting policies set out in note 2 of the Greenhills Group’s historical financial information. This report is required by paragraph 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if they had been 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.

Save for any responsibility arising under paragraph 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if they had been applied by part (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 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if it had been applied by part (a) of Schedule Two to the AIM Rules, consenting to its inclusion in the Admission Document.

#### **Responsibilities**

The Directors of the Company are responsible for preparing the Greenhills Group’s historical financial information on the basis of preparation set out in note 2 to the Greenhills Group historical financial information and in accordance with International Financial Reporting Standards as adopted by the European Union.

It is our responsibility to form an opinion as to whether the Greenhills Group’s historical financial information gives a true and fair view, for the purposes of the Admission Document, and to report our opinion to you.

#### **Basis of opinion**

We conducted our work in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. 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 judgments 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.

### **Opinion**

In our opinion, the Greenhills Group's historical financial information gives, for the purposes of the Admission Document, a true and fair view of the state of affairs of the Greenhills Group as at the date stated and of its loss, cash flows and changes in equity for the period then ended in accordance with the basis of preparation set out in note 2 and in accordance with International Financial Reporting Standards as adopted by the European Union.

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.

### **Declaration**

For the purposes of part (a) of Schedule Two to the AIM Rules we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Admission Document in compliance with item 1.2 of Annex I and item 1.2 of Annex III of Appendix 3.1.1 of the Prospectus Rules as if they had been applied by part (a) of Schedule Two to the AIM Rules.

Yours faithfully

### **Baker Tilly Corporate Finance LLP**

*Regulated by the Institute of Chartered Accountants in England and Wales*

Baker Tilly Corporate Finance LLP is a limited liability partnership registered in England and Wales, registered no. OC325347. A list of the names of members is open to inspection at the registered office 25 Farringdon Street, London, EC4A 4AB.

**SECTION B – HISTORICAL FINANCIAL INFORMATION OF GREENHILLS RESOURCES LIMITED**

**FOR THE PERIOD FROM INCORPORATION ON 25 NOVEMBER 2010 TO 28 FEBRUARY 2011**

**Consolidated Statement of Comprehensive Income**

*for the period ended 28 February 2011*

	2011
	£
<b>Revenue</b>	–
<b>Expenditure</b>	
Administration Fees	(1,950)
Company Incorporation Fees	(1,500)
Filing Fees	(520)
<b>Loss for the period and total comprehensive income attributable to equity holders of parent company</b>	<u>(3,970)</u>

Operating losses all derive from continuing operations.

Greenhills Resources Limited (“Greenhills”) was incorporated on 25 November 2010 and accordingly no comparative information exists in respect of prior periods.

**Consolidated Statement of Changes in Equity**

*for the period ended 28 February 2011*

	<i>Attributable to owners of the parent company</i>		
	<i>Share</i>	<i>Retained</i>	<i>Total</i>
	<i>Capital</i>	<i>Loss</i>	<i>Equity</i>
	£	£	£
<b>On incorporation</b>	100	–	100
Total comprehensive income for the period	–	(3,970)	(3,970)
<b>Balance at 28 February 2011</b>	<u>100</u>	<u>(3,970)</u>	<u>(3,870)</u>

## Consolidated Statement of Financial Position

as at 28 February 2011

	<i>Note</i>	<i>2011</i> £
<b>Assets</b>		
<b>Current assets</b>		
Other receivables	4	100
<b>Total Current assets</b>		<u>100</u>
<b>Total assets</b>		<u>100</u>
<b>Current liabilities</b>		
Other payables	5	(3,970)
<b>Total current liabilities</b>		<u>(3,970)</u>
<b>Total liabilities</b>		<u>(3,970)</u>
<b>Net Liabilities</b>		<u>(3,870)</u>
<b>Equity</b>		
Share capital	6	100
Retained Loss		(3,970)
<b>Total equity attributable to equity holders of parent</b>		<u>(3,870)</u>

## Consolidated Statement of Cash Flows

for the period ended 28 February 2011

	<i>2011</i> £
<b>Loss for the period</b>	(3,970)
Increase in current liabilities	3,970
<b>Net cash flow from operations</b>	<u>–</u>
<b>Net cash flow for the period</b>	<u>–</u>

Significant non-cash movements: on incorporation Greenhills issued £100 of new ordinary share capital to VML Resources Limited (“VML”). This balance remained unpaid as at 28 February 2011.

## Notes to the Greenhills Historical Financial Information

### 1. Corporate Information and Activities

As at 28 February 2011 the Greenhills Group comprised Greenhills Resources Limited, a Guernsey company incorporated on 25 November 2010, and Mokopane Tin Company (Proprietary) Limited (“Mokopane”), a dormant South African holding company incorporated on 9 September 2010. The entire issued share capital of Mokopane was acquired by Greenhills on 21 February 2011 at par.

Greenhills is an investment holding company which was formed to invest in resource-based exploration companies. The Greenhills historical financial information reflects the performance of Greenhills and Mokopane from the date of incorporation of Greenhills to the 28 February 2011. Mokopane has remained dormant since its incorporation to 28 February 2011.

As at 28 February 2011 the Greenhills Group was comprised as follows:

<i>Company</i>	<i> Holding</i>	<i>Country of incorporation</i>	<i>Nature of Activities</i>
Greenhills	parent	Guernsey	Holding co.
Mokopane	100%	South Africa	Dormant

Subsequent to 28 February 2011 the Greenhills Group acquired a 74 per cent. shareholding in Renetype (Proprietary) Limited from VM Investments (Proprietary) Limited (“VMI”), a related party. Details of this transaction are set out in note 11.

Greenhill’s ultimate parent company as at 28 February 2011 is VML, a company incorporated in Guernsey.

### 2. Significant Accounting Policies

#### *Basis of accounting*

The Greenhills historical financial information has been prepared under the historical cost convention in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union.

#### *Basis of consolidation*

The Greenhills historical financial information includes that of Greenhills and its subsidiary, Mokopane. The results of the subsidiary are effective from the date of acquisition.

On acquisition the Greenhills Group recognises the subsidiary’s identifiable assets, liabilities and contingent liabilities at fair value. Any excess cost of shares acquired over the fair value of the subsidiaries’ identifiable net assets at the dates of acquisition is expressed as goodwill.

Goodwill is recognised as an asset and reviewed for impairment at least annually. It is allocated to cash generating units which represent the Greenhills Group’s investment in each country of operation. When determining whether goodwill is impaired, the carrying value of the cash generating unit is adjusted to include the goodwill attributable to the non-controlling interest when the non-controlling interest has been measured as a proportionate share of the net identifiable assets of the subsidiary. Impairment losses are recognised immediately in profit or loss and allocated to non-controlling interests on the same basis as the profit or loss of the subsidiary. Impairment losses are not subsequently reversed.

All intercompany transactions, balances, income and expenses are eliminated in full on consolidation.

#### *Foreign currencies*

##### *Functional and presentational currency*

The Rand is the local currency in South Africa and is the functional currency of the Greenhills’ subsidiaries. For reporting purposes has been translated into sterling (“GBP”), the currency of the United Kingdom.

### *Transactions and balances*

Transactions in foreign currencies are initially recorded at the rates of exchange prevailing on the dates of the transaction. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currency are translated into the reporting currency at the rate prevailing on that date.

Non-monetary assets and liabilities are carried at cost and are translated into the reporting currency at the rate prevailing on the balance sheet date.

### *Financial assets and liabilities*

#### *Trade and other receivables*

Trade and other receivables are stated at the fair value of the consideration receivable less any impairment. Impairment provisions are recognised when there is objective evidence that the Greenhills Group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

They are subsequently measured at amortised cost, less any impairment, using the effective interest rate method.

#### *Trade and other payables*

Trade and other payables are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

#### *Share capital*

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax from proceeds.

### *Taxation*

The tax charge is based on taxable profit for the year. Greenhills' liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method.

Deferred tax liabilities are 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. Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based upon rates enacted and substantively enacted at the balance sheet date. Deferred tax is charged or credited to profit or loss, except when it relates to items credited or charged to other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income.

### *Segmental reporting*

The reporting segments are identified by the directors of Greenhills (who are considered to be the chief operating decision makers) by the way that Greenhills's operations are organised. As at 28 February 2011 the company operated within one operational division comprising the exploration for, and development of, Tin assets in South Africa.

### *Use of estimates and judgments*

The preparation of the Greenhills historical financial information in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal the actual results. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Management's only critical estimate and judgement in determining the value of assets, liabilities and equity is the valuation of intangible exploration assets.

The valuation of intangible exploration assets is dependent upon the discovery of economically recoverable deposits which, in turn, is dependent on future Tin prices, future capital expenditures and environmental and regulatory restrictions.

***Accounting standards and interpretations not applied***

The following standards and interpretations relevant to the Greenhills Group were in issue but not yet effective or endorsed (unless otherwise stated) as at the date of the Greenhills historical financial information, and have not been applied:

		<i>Effective Date</i>
IFRS 7	Financial Instruments: Disclosures – Amendments; Disclosures – Transfers of Financial Assets	1 July 11
IFRS 1	First-time Adoption of IFRS – Amendment; Severe Hyperinflation and Removal of Fixed Dates for First-Time Adopters	1 July 11
IAS 12	Income Taxes – Amendment; Deferred Tax: Recovery of Underlying Assets	1 January 12
IFRS 9	Financial Instruments	1 January 15
IFRS 10	Consolidated Financial Statements	1 January 13
IFRS 11	Joint Arrangements	1 January 13
IFRS 12	Disclosure of Interests in Other Entities	1 January 13
IFRS 13	Fair Value Measurement	1 January 13
IAS 27	Separate Financial Statements (as amended 2011)	1 January 13
IAS 28	Investments in Associates and Joint Ventures (as amended 2011)	1 January 13

The Directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the Greenhills historical financial information of the Greenhills Group.

***Going Concern***

The Directors have a reasonable expectation that Greenhills and the Greenhills Group have adequate resources to continue in operational existence for the foreseeable future, with this expectation being based on the continued financial support of Bushveld Minerals Limited, which has formally confirmed that it will provide such support.

As such the Greenhills Group's historical financial information has been prepared on a going concern basis.

**3. Taxation**

The group's taxable loss for the period arises in Guernsey and accordingly a tax rate of nil per cent. is applicable thereon.

#### 4. Other receivables

	28 February 2011 £
Related party receivables	100
	<u>100</u>

The above balance is owed by VML Resources, the parent company of Greenhills (see note 8).

#### 5. Other payables

	28 February 2011 £
Related party payables	3,970
	<u>3,970</u>

The above balance is owed to Oak Trust, an entity related to Oak Directors Ltd, the nominee director of Greenhills acting on behalf of its parent company, and is accordingly considered a related party to the Greenhills Group (see note 8).

#### 6. Share capital

	<i>Number</i>	<i>£</i>
Authorised: Unlimited ordinary shares of £1.00 each: <b>At 28 February 2011</b>	<u>n/a</u>	<u>n/a</u>
Allotted and issued ordinary shares of £1.00 each: <b>At 28 February 2011</b>	<u>100</u>	<u>100</u>

Greenhills issued 100 ordinary shares to its parent company during the period. These were not fully paid as at the period end.

#### 7. Financial instruments

##### *Capital risk management*

Greenhills manages its capital to ensure that entities in the group will be able to continue as a going concern while maximising the return to stakeholders. The overall capital risk management strategy of Greenhills is to minimise costs and liquidity risk.

The capital structure of Greenhills consists of equity attributable to equity holders of the parent, comprising issued share capital, as disclosed in note 6, and in the Statement of Changes in Equity.

##### *Credit risk*

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

	2011 £
VML	100
	<u>100</u>

As at 28 February 2011 VML is the parent company of Greenhills and accordingly considered to be a related party to the Greenhills Group.



### **Liquidity Risk**

The following are the contractual maturities of financial liabilities as at 28 February 2011:

	<i>Carrying Amount</i> £	<i>Contractual cash flows</i> £	<i>12 months or less</i> £
Due to related party	3,970	3,970	3,970
	<u>3,970</u>	<u>3,970</u>	<u>3,970</u>

Given that the above contractual liability is payable to a related party the Directors are of the opinion that there is no need to manage liquidity risk further.

### **Fair Values**

The fair values of the financial assets and liabilities are materially consistent with the carrying values.

### **8. Related party transactions**

Balance due from related parties at the end of the period:

	<i>28 February 2011</i> £
VML	100
	<u>100</u>

Balance due to related parties at the end of the period:

	<i>28 February 2011</i> £
Oak Trust	3,970
	<u>3,970</u>

Transactions with related parties during the period:

	<i>On incorporation</i> £	<i>Movement</i> £	<i>28 February 2011</i> £
Oak Trust	–	3,970	3,970
VML	–	(100)	(100)

The Greenhills Group utilises office space leased by VMI, for which no charge is levied against the Greenhills Group.

### **9. Contingent liabilities**

There were no contingent liabilities as at 28 February 2011.

### **10. Capital commitments**

There were no capital commitments as at 28 February 2011.

## 11. Events after the reporting period

### *Acquisition of subsidiary*

Mokopane, Greenhills' wholly owned subsidiary, entered into a sale of shares agreement with VMI, Connosia Trading 62 CC ("Cannosia"), African Women Enterprise Investments (Proprietary) Limited ("Awevest") and Renetype (Proprietary) Limited ("Renetype") to acquire the 74 per cent. shareholding in Renetype held by VMI for £90,164 (SAR 1,000,000) (the remaining 26 per cent. being held by Cannosia and Awevest). This amount was paid in cash on 25 July 2011.

The date of this acquisition was 27 May 2011, and as at this date the book value of the net assets of Renetype were:

	£
Capitalised exploration costs	402,334
VMI creditor	(214,892)
Bushveld Group creditor	(160,333)
VML Resources accrual	(27,100)
<b>Net Assets</b>	<u>9</u>
<b>Share capital</b>	<u>9</u>

On 23 May 2011 a sale of prospecting right agreement had been entered into between Renetype and VMI, whereby VMI transferred its ownership of its Prospecting Right 2205 (which related to an area in the Mogalakwena District located in the Limpopo Province of South Africa) to Renetype for SAR 1.

### *Shareholder funding*

In terms of a subscription agreement entered into between Greenhills, Obtala Resources Limited ("Obtala") and VML Resources Limited ("VML"), Greenhills agreed to issue 50 per cent. of its share capital to Obtala in return of a \$4,000,000 cash subscription. The subscription was conditional upon Mokopane acquiring a 74 per cent. interest in Renetype, VMI transferring 2205 PR to Renetype, and various other conditions.

On 24 March 2011 Obtala advanced an unsecured loan of £1,226,000 (\$2,000,000) to Greenhills. Further amounts of £457,600 (\$750,000), £162,200 (\$250,000) and £312,500 (\$500,000) were advanced on 28 July 2011, 5 October 2011 and February 2012 respectively.

At this time these loans were considered to be unsecured, interest-free and repayable on demand.

This subscription agreement was subsequently revised such that Obtala would be issued with 50 per cent. of Greenhill's share capital for \$3,750,000.

### *VMI consultancy agreement*

With effect from 1 June 2011 the Greenhills Group entered into a consultancy agreement with VMI, whereby VMI would be paid a fee of SAR 150,000 (c. £13,600) per annum. This agreement was subsequently terminated, with the agreement that no fees to date would be payable.

### *Consultancy agreement*

Prior to admission a consultancy agreement was signed by Greenhills with VMI for the provision of consulting services at various rates depending on the specific services provided.

### *Change of parent undertaking*

Prior to admission VML and Obtala entered into a share for share transaction with Bushveld Minerals Ltd whereby Bushveld Minerals Ltd became the direct parent company of Greenhills in return for issuing an equivalent shareholding in itself. Further details which are set out in Section 11.2(b) of Part VIII of this document.

***VML consultancy agreement***

On 6 April 2011 Greenhills entered into a consultancy agreement with VML whereby Greenhills would pay:

- \$1 million (£612,907) upon signature;
- \$1 million (c. £612,900) upon admission of Greenhill's shares to an appropriate exchange within 12 months; and
- \$0.5 million (c. £306,500) per annum for ongoing consultancy services (the cost of which was to be shared equally between the Greenhills Group and the Bushveld Resources Group).

In accordance with this agreement the \$1 million was paid immediately and Greenhills began to accrue for its share of the \$0.5 million per annum consultancy fees.

This agreement was subsequently terminated such that the second fee of \$1 million and ongoing annual fee of \$0.5 million were no longer payable.

## **SECTION C – ACCOUNTANTS’ REPORT ON THE HISTORICAL INTERIM FINANCIAL INFORMATION OF THE GREENHILLS GROUP**

The following is the full text of a report on Greenhills Resources Limited from Baker Tilly Corporate Finance LLP, the Reporting Accountants, to the Directors of Bushveld Minerals Limited.



**BAKER TILLY**

25 Farringdon Street  
London EC4A 4AB  
www.bakertilly.co.uk

The Directors  
Bushveld Minerals Limited  
18-20 Le Pollet  
St Peter Port  
Guernsey  
GY1 1WH

23 March 2012

Dear Sirs

### **Independent Review Report: Greenhills Resources Limited and its subsidiary undertakings (together, the “Greenhills Group”)**

We have been instructed by Bushveld Minerals (the “Company”) Limited to review the interim financial information relating to the Greenhills Group for the six month period ended 31 August 2011 (“Greenhills Group Interim Financial Information”) set out in Section D of Part IV of the admission document of the Company dated 23 March 2012 (“Admission Document”). We have read the other information in the Admission Document and considered whether it contains any apparent misstatements or material inconsistencies with the Greenhills Group Interim Financial Information.

This report is has been prepared in accordance with the requirements of International Standard on Review Engagements (UK and Ireland) 2410, “Review of Interim Financial Information Performed by the Independent Auditor of the Entity” issued by the Auditing Practices Board in the United Kingdom (“ISRE 2410”), as if it applied to the Bushveld Minerals Limited’s auditor and for no other purpose. This report, including the conclusion, has been prepared solely for the Company for the purposes of the Admission Document and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than a person as and to the extent provided by ISRE 2410, for our work, for this report, or for the opinions we have formed or consenting to its inclusion in the Admission Document.

### **Responsibilities**

The Greenhills Group Interim Financial Information is the responsibility of, and has been approved by, the directors of the Company (“the Directors”) and has been prepared by applying the accounting policies and presentation consistent with those that will be adopted in the Company’s annual financial statements and the requirements of paragraph 20.6 of Annex I to the Prospectus Rules as if those rules applied. The Greenhills Group Interim Financial Information has been prepared in accordance with International Financial Reporting Standards and International Financial Reporting Interpretations Committee (“IFRIC”) pronouncements as adopted by the European Union.

Our responsibility is to express to the Company a conclusion on the Greenhills Group Interim Financial Information, for the purposes of the Admission Document, based on our review.

### **Scope of review**

We conducted our review in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom and ISRE 2410 as if it applied to the Bushveld Minerals Limited's auditor. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the Greenhills Group Interim Financial Information.

### **Conclusion**

Based on our review, nothing has come to our attention that causes us to believe that, for the purposes of the Admission Document, the Greenhills Group Interim Financial Information has not been prepared, in all material respects, with the accounting policies and presentation consistent with those that will be adopted in Bushveld Minerals Limited's annual financial statements.

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.

### **Declaration**

For the purposes of part (a) of Schedule Two to the AIM Rules we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import.

Yours faithfully

### **Baker Tilly Corporate Finance LLP**

*Regulated by the Institute of Chartered Accountants in England and Wales*

Baker Tilly Corporate Finance LLP is a limited liability partnership registered in England and Wales, registered no. OC325347. A list of the names of members is open to inspection at the registered office 25 Farringdon Street, London, EC4A 4AB.

**SECTION D – UNAUDITED INTERIM FINANCIAL INFORMATION OF GREENHILLS RESOURCES LIMITED**

**FOR THE SIX MONTHS ENDED 31 AUGUST 2011**

**Consolidated Statement of Comprehensive Income**

*for the six months ended 31 August 2011*

	<i>31 August 2011 (Unaudited) £</i>
<b>Revenue</b>	–
<b>Expenditure</b>	
Consultancy fees	(612,907)
Administration fees	(1,625)
Bank charges	(249)
<b>Total operating loss</b>	<u>(614,781)</u>
Unrealised foreign exchange loss	<u>(21,494)</u>
<b>Loss for the period and total comprehensive income attributable to equity holders of parent company</b>	<u>(636,275)</u>
Attributable to:	
Owners of the parent company	(636,275)
Non-controlling interests	–
	<u>(636,275)</u>

Operating losses all derive from continuing operations.

Greenhills Resources Limited (“Greenhills”) was incorporated on 25 November 2010 and accordingly no comparative information exists for the period ended 31 August 2010.

**Consolidated Statement of Changes in Equity**

*for the six months ended 31 August 2011*

	<i>Attributable to owners of the parent company</i>			<i>Non- controlling Interests</i>	<i>Total Equity</i>
	<i>Share Capital</i>	<i>Retained Loss</i>	<i>Total</i>		
	<i>£</i>	<i>£</i>	<i>£</i>	<i>£</i>	<i>£</i>
<b>Balance at 28 February 2011</b>	100	(3,970)	(3,870)	–	(3,870)
On acquisition of Renetype	–	–	–	31,682	31,682
Comprehensive income for the period	–	(636,275)	(636,275)	–	(636,275)
<b>Balance at 31 August 2011</b>	<u>100</u>	<u>(640,245)</u>	<u>(640,145)</u>	<u>31,682</u>	<u>(608,463)</u>

## Consolidated Statement of Financial Position

as at 31 August 2011

		28 February 2011	31 August 2011 (Unaudited)
	Note	£	£
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	5	–	23,274
Intangible assets	6	–	823,878
<b>Total non-current assets</b>		–	847,152
<b>Current assets</b>			
Other receivables	7	100	401,163
Cash and cash equivalents		–	210,580
<b>Total current assets</b>		100	611,743
<b>Total assets</b>		100	1,458,895
<b>Current liabilities</b>			
Borrowings	8	–	(2,065,733)
Other payables	9	(3,970)	(1,625)
<b>Total current liabilities</b>		(3,970)	(2,067,358)
<b>Total liabilities</b>		(3,970)	(2,067,358)
<b>Net (liabilities)/assets</b>		(3,870)	(608,463)
<b>Equity</b>			
Share capital	10	100	100
Retained loss		(3,970)	(640,245)
<b>Total equity attributable to:</b>			
Equity holders of the parent company		(3,870)	(640,145)
Non- controlling interest		–	31,682
<b>Total equity</b>		(3,870)	(608,463)

## Consolidated Statement of Cash Flows

for the six months ended 31 August 2011

	31 August 2011 (Unaudited) £
Loss for the period	(636,275)
(Decrease)/increase in other payables	(2,345)
<b>Net cash outflow from operations</b>	<u>(638,620)</u>
<b>Investing activities</b>	
Monies advanced to Bushveld Group	(563,041)
Monies received from VMI	9,502
Exploration expenditure (capitalised)	(255,605)
Purchase of property, plant & equipment	(25,224)
Loan funds received	1,683,568
<b>Net increase in cash and cash equivalents</b>	<u>210,580</u>

### *Significant non-cash movements:*

During the period Greenhills acquired 74 per cent. of Renetype (Proprietary) Limited (“Renetype”) for £90,164 (SAR 1,000,000). On the date of this transaction Renetype had capitalised exploration costs of £402,334 and liabilities to the Bushveld Resources Limited and its subsidiaries (the “Bushveld Resources Group”), VM Investment Company (proprietary) Limited (“VMI”) and VML Resources Limited (“VML”) of £160,333, £214,892 and £27,100 respectively, giving it net assets on the day of acquisition of £9.

These amounts were therefore recognised within the net assets of the Greenhills Group as from this date, but had no effect on cash balances.

An intangible asset was also recognised as from this date in respect of Prospecting Right 2205, at a value of £121,844, but again this had no effect on cash balances.

The purchase price of £90,164 was paid on 25 July 2011.



## Notes to the Greenhills unaudited interim historical consolidated financial information

### 1. Corporate Information and Activities

The Greenhills Group comprises Greenhills Resources Limited, a company registered in Guernsey, and its wholly-owned South African subsidiary Mokopane Tin Company (Proprietary) Limited (“Mokopane”) which in turn owns 74 per cent. of Renetype (proprietary) Limited (“Renetype”), a South African company.

The minority shareholders of Renetype are African Women Enterprise Investments (Proprietary) Limited and Cannosia Trading 62 CC who own 10 per cent. and 16 per cent. respectively and are both incorporated in South Africa.

As at 31 August 2011 the Greenhills Group was comprised as follows:

<i>Company</i>	<i> Holding</i>	<i>Country of incorporation</i>	<i>Nature of Activities</i>
Greenhills	parent	Guernsey	Holding co.
Mokopane	100%	South Africa	Dormant
Renetype	74%	South Africa	Tin exploration – prospecting right 2205

Renetype has been engaged in developing various targets within Prospecting Right 2205, which right was sold to Renetype by VMI. This sale becomes effective on the date of its approval by the Department of Mineral Resources in South Africa (“DME”) (which occurred on 1 December 2011) and registration by the Mineral and Petroleum Titles Registration Office in South Africa (“MPTRO”).

Both Greenhills and Mokopane are dormant holding companies.

Greenhill’s ultimate parent company is VML, a company incorporated in Guernsey.

### 3. Significant Accounting Policies

#### *Basis of accounting*

The Greenhills interim consolidated historical financial information has been prepared under the historical cost convention in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union.

#### *Basis of consolidation*

The Greenhills interim consolidated historical financial information includes that of Greenhills and its subsidiaries. The results of the subsidiaries are effective from the date of acquisition.

On acquisition the Greenhills Group recognises the subsidiary’s identifiable assets, liabilities and contingent liabilities at fair value. Any excess cost of shares acquired over the fair value of the subsidiaries’ identifiable net assets at the dates of acquisition is expressed as goodwill.

Goodwill is recognised as an asset and reviewed for impairment at least annually. It is allocated to cash generating units which represent the Greenhills Group’s investment in each country of operation. When determining whether goodwill is impaired, the carrying value of the cash generating unit is adjusted to include the goodwill attributable to the non-controlling interest when the non-controlling interest has been measured as a proportionate share of the net identifiable assets of the subsidiary. Impairment losses are recognised immediately in profit or loss and allocated to non-controlling interests on the same basis as the profit or loss of the subsidiary. Impairment losses are not subsequently reversed.

All intercompany transactions, balances, income and expenses are eliminated in full on consolidation.

#### *Foreign currencies*

##### *Functional and presentational currency*

The Rand is the local currency in South Africa and is the functional currency of the Greenhills’ subsidiaries. For reporting purposes has been translated into sterling (“GBP”), the currency of the United Kingdom.

### *Transactions and balances*

Transactions in foreign currencies are initially recorded at the rates of exchange prevailing on the dates of the transaction. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currency are translated into the reporting currency at the rate prevailing on that date.

Non-monetary assets and liabilities are carried at cost and are translated into the reporting currency at the rate prevailing on the balance sheet date.

### ***Revenue recognition***

#### *Finance income*

Interest revenue is recognised when it is probable that the economic benefits will flow to the Greenhills Group and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

#### ***Intangible exploration and evaluation assets***

All costs associated with mineral exploration and evaluation including the costs of acquiring prospecting licences, mineral production licences and annual licences fees, rights to explore, topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling and activities to evaluate the technical feasibility and commercial viability of extracting a mineral resource, are capitalised as intangible exploration and evaluation assets and subsequently measured at cost.

If an exploration project is successful, the related expenditures will be transferred at cost to plant and equipment and amortised over the estimated life of the commercial ore reserves on a unit of production basis (with this charge being taken through profit or loss). Where a project does not lead to the discovery of commercially viable quantities of mineral resources and is relinquished, abandoned, or is considered to be of no further commercial value to Bushveld, the related costs are written off to profit or loss with immediate effect.

The recoverability of deferred exploration costs is dependent upon the discovery of economically viable ore reserves, the ability of Greenhills to obtain necessary financing to complete the development of ore reserves and future profitable production or proceeds from the extraction thereof.

#### ***Impairment of exploration and evaluation assets***

Whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, the asset is reviewed for impairment. An asset's carrying value is written down to its estimated recoverable amount (being the higher of the fair value less costs to sell and value in use) if that is less than the asset's carrying value. Impairment losses are recognised in profit or loss immediately.

An impairment review is undertaken when indicators of impairment arise but typically when one of the following circumstances applies:

- unexpected geological occurrences that render the resources uneconomic;
- title to the asset is compromised;
- variations in mineral prices that render the project uneconomic; or
- Greenhills determines that it no longer wishes to continue to evaluate or develop the field.

### ***Plant and equipment***

Plant and equipment assets are stated at historical cost.

Depreciation is provided on all plant and equipment assets at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life as follows:

- Motor vehicles over 3 years
- Computers over 2 years

### ***Financial assets and liabilities***

#### *Trade and other receivables*

Trade and other receivables are stated at the fair value of the consideration receivable less any impairment. Impairment provisions are recognised when there is objective evidence that the Greenhills Group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

They are subsequently measured at amortised cost, less any impairment, using the effective interest rate method.

#### *Trade and other payables*

Trade and other payables are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

#### *Cash and cash equivalents*

Cash and cash equivalents comprise cash at hand and deposits on a term of not greater than three months.

#### *Share capital*

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax from proceeds.

### ***Taxation***

The tax charge is based on taxable profit for the year. The Greenhills Group's liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amount of assets and liabilities in the historical financial information and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method.

Deferred tax liabilities are 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. Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based upon rates enacted and substantively enacted at the balance sheet date. Deferred tax is charged or credited to profit or loss, except when it relates to items credited or charged to other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income.

### ***Segmental reporting***

The reporting segments are identified by the directors of Greenhills (who are considered to be the chief operating decision makers) by the way that Greenhills's operations are organised. As at 31 August 2011 the company operated within one operational division comprising the exploration for, and development of, Tin assets in South Africa.

### ***Use of estimates and judgments***

The preparation of the Greenhills historical financial information in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal the actual results. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Management's only critical estimate and judgement in determining the value of assets, liabilities and equity is the valuation of intangible exploration assets.

The valuation of intangible exploration assets is dependent upon the discovery of economically recoverable deposits which, in turn, is dependent on future Tin prices, future capital expenditures and environmental and regulatory restrictions.

### ***Accounting standards and interpretations not applied***

The following standards and interpretations relevant to the Greenhills Group were in issue but not yet effective or endorsed (unless otherwise stated) as at the date of the Greenhills interim historical financial information, and have not been applied:

		<i>Effective Date</i>
IFRS 7	Financial Instruments: Disclosures – Amendments; Disclosures – Transfers of Financial Assets	1 July 11
IFRS 1	First-time Adoption of IFRS – Amendment; Severe Hyperinflation and Removal of Fixed Dates for First-Time Adopters	1 July 11
IAS 12	Income Taxes – Amendment; Deferred Tax: Recovery of Underlying Assets	1 January 12
IFRS 9	Financial Instruments	1 January 15
IFRS 10	Consolidated Financial Statements	1 January 13
IFRS 11	Joint Arrangements	1 January 13
IFRS 12	Disclosure of Interests in Other Entities	1 January 13
IFRS 13	Fair Value Measurement	1 January 13
IAS 27	Separate Financial Statements (as amended 2011)	1 January 13
IAS 28	Investments in Associates and Joint Ventures (as amended 2011)	1 January 13

The Directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the financial information of the Greenhills Group.

### ***Going Concern***

The Directors have a reasonable expectation that Greenhills and the Greenhills Group have adequate resources to continue in operational existence for the foreseeable future, with this expectation being based on the continued financial support of Bushveld Minerals Limited, which has formally confirmed that it will provide such support.

As such the Greenhills Group's unaudited interim financial information has been prepared on a going concern basis.

#### 4. Segmental information

The Greenhills Group has one segment being the exploration for Tin in the Mogalakwena District located in the Limpopo Province of South Africa by its 74 per cent. subsidiary Renetype. The Greenhills Group's assets and liabilities solely relate to that segment.

#### 5. Taxation

Although the application of corporation tax legislation in South Africa may give rise to an assessable tax loss in respect of capitalised exploration expenditure and consequently a deferred tax asset as at 31 August 2011 of £197,000 (based on the current applicable tax rate of 28 per cent.), no such deferred tax asset has been recognised due to the uncertainty at that date of future taxable income arising from such activities.

Similarly, no deferred tax asset has been recognised in respect of unrealised exchange losses arising in the period given uncertainty over the timing and quantum of their potential reversal.

#### 6. Property, Plant and Equipment

	<i>Motor Vehicles</i>	<i>Computer Equipment</i>	<i>Total</i>
	£	£	£
<b>Cost</b>			
At 28 February 2011	–	–	–
Additions	25,224	–	25,224
Transfer in from related company	–	1,645	1,645
<b>At 31 August 2011 (Unaudited)</b>	<u>25,224</u>	<u>1,645</u>	<u>26,869</u>
<b>Depreciation</b>			
At 28 February 2011	–	–	–
Charge for period	(3,503)	(92)	(3,595)
<b>At 31 August 2011 (Unaudited)</b>	<u>(3,503)</u>	<u>(92)</u>	<u>(3,595)</u>
<b>Net Book Value at 28 February 2011</b>	–	–	–
<b>Net Book Value at 31 August 2011 (Unaudited)</b>	<u>21,721</u>	<u>1,553</u>	<u>23,274</u>

Computer equipment with a value of £1,645 was transferred in from the Bushveld Group, a related party (see note 12), during the period.

#### 7. Intangible assets

	<i>Exploration Expenditure</i>
	£
<b>At 28 February 2011</b>	–
Acquisition of Renetype	121,844
Capitalised exploration expenditure obtained on acquisition of Renetype	402,334
Capitalised exploration expenditure incurred since acquisition of Renetype	299,700
<b>At 31 August 2011 (Unaudited)</b>	<u>823,878</u>

Control of Prospecting Right 2205 was effectively gained by Greenhills upon the acquisition of 74 per cent. of Renetype on 27 May 2011 from VMI, a related party through common directorships, for SAR 1,000,000 (£90,164).

This was accounted for as an asset acquisition, with the payment of £90,164 for a 74 per cent. interest in Renetype conferring a value of £121,844 for a 100 per cent. interest in Renetype. It is therefore this latter value that has been recognised as the value of the intangible asset arising on consolidation.

## 8. Other receivables

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
Related party receivables	100	401,163
	<u>100</u>	<u>401,163</u>

The above balances are owed by the Bushveld Resources Group and VML as set out in note 12.

The Bushveld Resources Group is considered to be a related party to the Greenhills Group due to common directorships and shareholders.

VML is the parent of Greenhills and therefore also considered to be a related party to the Greenhills Group.

On the date of its acquisition by Greenhills, Renetype owed the Bushveld Resources Group £160,333. This balance, along with the purchase of computer equipment for £1,645 (note 5) has since been paid off with Greenhills advancing a total of £563,041 to the Bushveld Resources Group up until 31 August 2011, leading to the debtor balance above.

## 9. Borrowings

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
Borrowings	–	1,683,568
Related party borrowings	–	382,165
	<u>–</u>	<u>2,065,733</u>

The above borrowings are owed to VMI and VML as set out in note 12.

VMI is considered to be related parties to the Greenhills Group due to common directorships and shareholders.

VML is the parent of Greenhills and therefore also considered to be a related party to the Greenhills Group.

### *Shareholder funding*

A subscription agreement was entered into whereby Obtala Resources Limited (“Obtala”) would acquire a 50 per cent. shareholding in Greenhills for a total of \$4.0 million. This subscription agreement is subject to the completion of the sale of prospecting right 2205 PR from VMI to Renetype and the sale of its 74 per cent. interest in Renetype to Mokopane.

In anticipation of the transfer of Prospecting Right 2205 Obtala lent Greenhills £1,226,000 (\$2.0 million) on 24 March 2011, followed by a further £457,000 (\$0.75 million) on 28 July 2011. Additional payments were made after the period end as set out in Note 17.

At the time these loans were considered to be unsecured, interest free and had no formal repayment date and accordingly have been classified as being repayable within one year.

As at 31 August 2011 the approval and registration of Prospecting Right 2205 had not been concluded. Approval was granted on 1 December 2011 although registration is not expected to take place until after Admission.

This subscription agreement was subsequently revised such that Obtala would be issued with 50 per cent. of Greenhills’ share capital for \$3,750,000.

### ***Related party borrowings***

VMI and VML are both considered to be related parties to the Greenhills Group due to common directorships and shareholders.

The amounts owed to VMI and VML are considered to be unsecured, non interest bearing and with no fixed repayment date.

### **10. Other payables**

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	<i>£</i>	<i>£</i>
Related party payables	3,970	1,625
	<u>3,970</u>	<u>1,625</u>

The above balance is owed to Oak Trust, an entity related to Oak Directors Ltd, the nominee director of Greenhills acting on behalf of its parent company, and is accordingly considered a related party to the Greenhills Group (see note 12).

The amounts owed to Oak Trust are considered to be unsecured, non interest bearing and are settled in the financial year following their incurrence.

### **11. Share capital**

	<i>Number</i>	<i>£</i>
Authorised: Unlimited ordinary shares of £1.00 each: <b>At 31 August 2011</b>	<u>n/a</u>	<u>n/a</u>
Allotted and issued ordinary shares of £1.00 each: <b>At 31 August 2011</b>	<u>100</u>	<u>100</u>

The issued share capital was not fully paid at the period end.

### **12. Financial instruments**

#### ***Capital risk management***

Greenhills manages its capital to ensure that entities in the Greenhills Group will be able to continue as a going concern while maximising the return to stakeholders. The overall capital risk management strategy of Greenhills and the Greenhills Group is to minimise costs and liquidity risk.

The capital structure of the Greenhills Group consists of equity attributable to equity holders of the parent, comprising issued share capital, as disclosed in note 10, and in the Statement of Changes in Equity.

The Greenhills Group is exposed to a number of risks through its normal operations, the most significant of which are credit and liquidity risks. The management of these risks is vested in the Board of Directors.

### ***Credit risk***

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at 31 August 2011 was:

	£ ( <i>unaudited</i> )
Due from Bushveld Resources Group	401,263
Cash and cash equivalents	210,580
	<u>611,843</u>

Credit risk is managed through only providing funding to related parties and/or only holding cash balances at recognised financial institutions with high credit ratings.

### ***Liquidity risk***

The following are the contractual maturities of financial liabilities as at 31 August 2011.

	<i>Carrying Amount (unaudited) £</i>	<i>Contractual Cash Flows (unaudited) £</i>	<i>12 Months or less (unaudited) £</i>
Oak Trust	1,625	1,625	1,625
VML	67,600	67,600	67,600
Obtala	1,683,568	1,683,568	1,683,568
VMI	314,565	314,565	314,565
	<u>2,067,358</u>	<u>2,067,358</u>	<u>2,067,358</u>

The amount due to Obtala was subsequently converted into equity, as set out in note 9.

VMI has funded a portion of the exploration expenditure and will be reimbursed upon request.

Consultancy fees payable to VML have been accrued and will be paid when requested.

Administrative fees payable to Oak Trust were paid in January 2012.

The Directors are of the opinion that given the above balances are due to related parties there is no need to manage liquidity risk further.

### ***Foreign exchange risk***

The Bushveld Resources Group is exposed to movements between the South African Rand and GBP.

This risk is managed through the ongoing monitoring of this exchange rate, although at present it is not considered necessary (or economically viable) to hedge this position.

### ***Fair Values***

The fair values of the financial assets and liabilities are materially consistent with the carrying values.



### 13. Related party transactions

Balance due from related parties at the end of the period:

	28 February 2011	31 August 2011 (unaudited)
	£	£
Bushveld Resources Group	–	401,163
VML	100	–
	<u>100</u>	<u>401,163</u>

Balance due to related parties at the end of the period:

	28 February 2011	31 August 2011 (unaudited)
	£	£
Oak Trust	–	1,625
VML	–	67,600
VMI	–	314,565
	<u>–</u>	<u>383,790</u>

The balance owed to VML as at 31 August 2011 is denominated in US\$. The balance owed to VMI as at 31 August 2011 is denominated in SAR.

Transactions with related parties during the period:

	<i>At</i> 28 February 2011 £	<i>Acq. of</i> <i>Renetype</i> £	<i>Liability ass'd</i> <i>on acq. of</i> <i>Renetype</i> £	<i>Purch.</i> <i>of PP&amp;E</i> £	<i>Cons.</i> <i>fee</i> £	<i>(Adv'd)</i> <i>/rec'd</i> £	<i>Bal. at</i> 31 August 2011 £
VMI	–	90,171	26,165	–	–	198,229	314,565
Bushveld Resources Group	–	–	160,333	1,645	–	(563,041)	(401,163)
VML	100	–	–	–	612,907*	(67,700)	(67,600)
Oak Trust	–	–	–	–	–	(1,625)	(1,625)

\* – paid in period – see below

The Greenhills Group utilises office space leased by VMI, for which no charge is levied against the Greenhills Group.

The Greenhills Group also leases a vehicle from VMI at an annual rate of £9,000 per annum, the applicable amount of which was paid for in the period.

#### ***VML consultancy agreement***

On 6 April 2011 Greenhills entered into a consultancy agreement with VML whereby Greenhills would pay:

- \$1 million (£612,907) upon signature;
- \$1 million (c. £612,900) upon admission of Greenhill's shares to an appropriate exchange within 12 months; and
- 0.5 million (c. £306,500) per annum for ongoing consultancy services (the cost of which was to be shared equally between the Greenhills Group and the Bushveld Resources Group).

As per this agreement the \$1 million was paid immediately and Greenhills began to accrue for its share of the \$0.5 million per annum consultancy fees.

This agreement was subsequently terminated such that the second fee of \$1 million and ongoing annual fee of \$0.5 million were no longer payable. As at 31 August 2011 £67,600 had been accrued (and capitalised as intangible exploration costs) in respect of the Greenhill's Group share of the ongoing \$0.5 million annual fee, and these amounts were accordingly written back on the termination of the agreement.

#### ***VMI consultancy agreement***

With effect from 1 June 2011 the Greenhills Group entered into a consultancy agreement with VMI, whereby VMI would be paid a fee of SAR 150,000 (c. £13,600) per annum. This agreement was subsequently terminated, with the agreement that no fees to date would be payable.

During the six months ended 31 August 2011 the following compensation was paid to key management:

	<i>Short-term employee benefits</i>
	£
G. Sproule	8,115
F. Mojapelo	–
A. Viljoen	–

#### **14. Contingent liabilities**

As at 31 August 2011 Greenhills was liable to pay VML Resources, its parent entity, \$1 million (c.£612,900) if its shares were to be admitted to an appropriate exchange prior to 5 April 2012 (see note 13).

The agreement under which this payment was to be made was subsequently terminated (see note 13).

#### **15. Capital commitments**

There were no capital commitments as at 31 August 2011.

Licence fees in respect of the Prospecting Right 2205 are payable annually to the Department of Mineral Resources in South Africa. Future fees payable are

Year ended 28 February 2012	£2,421
Year ended 28 February 2013	£3,026
Year ended 28 February 2014	£3,631

#### **16. Acquisition of Subsidiary**

Mokopane, Greenhills' wholly owned subsidiary, entered into a sale of shares agreement with VMI, Connosia Trading 62 CC ("Cannosia"), African Women Enterprise Investments (Proprietary) Limited ("Awevest") and Renetype (Proprietary) Limited ("Renetype") to acquire the 74 per cent. shareholding in Renetype held by VMI for £90,164 (SAR 1,000,000) (the remaining 36 per cent. being held by Cannosia and Awevest). This amount was paid in cash on 25 July 2011.

The date of this acquisition was 27 May 2011, and as at this date the book value of the net assets of Renetype were:

	£
Capitalised exploration costs	402,334
VMI creditor	(214,892)
Bushveld Resources Group creditor	(160,333)
VML accrual	(27,100)
	<hr/>
Net Assets	9
	<hr/>
Share capital	9
	<hr/>

On 23 May 2011 a sale of prospecting right agreement had been entered into between Renetype and VMI, whereby VMI transferred its ownership of its Prospecting Right 2205 to Renetype for SAR 1.

## **17. Post Balance Sheet Events**

### ***Shareholder funding***

On 5 October 2011 and February 2012 Obtala provided the Greenhills Group with a further £162,200 (\$250,000) and £312,500 (\$500,000) respectively.

The terms of this funding were subsequently revised, as set out in Note 9.

### ***Change of parent undertaking***

Prior to Admission VML and Obtala entered into a share for share transaction with Bushveld Minerals Ltd whereby Bushveld Minerals Ltd became the direct parent company of Greenhills in return for issuing an equivalent shareholding in itself, further details of which are set out in Section 11.2(b) of Part VIII of this document.

### ***Consulting agreement***

Prior to Admission a consulting agreement was signed by Greenhills with VMI for the provision of consulting service at various rates depending on the specific services provided.

## **SECTION E – ACCOUNTANTS’ REPORT ON THE HISTORICAL FINANCIAL INFORMATION OF THE BUSHVELD GROUP**

The following is the full text of a report on Bushveld Resources Limited from Baker Tilly Corporate Finance LLP, the Reporting Accountants, to the Directors of Bushveld Minerals Limited.



**BAKER TILLY**

25 Farringdon Street  
London EC4A 4AB  
www.bakertilly.co.uk

The Directors  
Bushveld Minerals Limited  
18-20 Le Pollet  
St Peter Port  
Guernsey  
GY1 1WH

23 March 2012

Dear Sirs

### **Bushveld Resources Limited and its subsidiary undertakings (together, the “Bushveld Resources Group”)**

We report on the Bushveld Resources Group historical financial information set out Section F of Part IV of this document. This Bushveld Resources Group historical financial information has been prepared for inclusion in the admission document dated 23 March 2012 (“Admission Document”) of Bushveld Minerals Limited (the “Company”) on the basis of the accounting policies set out in note 2 of the Bushveld Resources Group historical financial information. This report is required by paragraph 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if they had been 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.

Save for any responsibility arising under paragraph 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if they had been applied by part (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 20.1 of Annex I of Appendix 3.1.1 of the Prospectus Rules as if it had been applied by part (a) of Schedule Two to the AIM Rules, consenting to its inclusion in the Admission Document.

### **Responsibilities**

The Directors of the Company are responsible for preparing the Bushveld Resources Group historical financial information on the basis of preparation set out in note 2 to the Bushveld Resources Group historical financial information and in accordance with International Financial Reporting Standards as adopted by the European Union.

It is our responsibility to form an opinion as to whether the Bushveld Resources Group historical financial information gives a true and fair view, for the purposes of the Admission Document, and to report our opinion to you.

### **Basis of opinion**

We conducted our work in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. 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 judgments 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.

### **Opinion**

In our opinion, the Bushveld Resources Group historical financial information gives, for the purposes of the Admission Document, a true and fair view of the state of affairs of the Bushveld Resources Group as at the dates stated and of its losses, cash flows and changes in equity for the periods then ended in accordance with the basis of preparation set out in note 2 and in accordance with International Financial Reporting Standards as adopted by the European Union.

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.

### **Declaration**

For the purposes of part (a) of Schedule Two to the AIM Rules we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Admission Document in compliance with item 1.2 of Annex I and item 1.2 of Annex III of Appendix 3.1.1 of the Prospectus Rules as if they had been applied by part (a) of Schedule Two to the AIM Rules.

Yours faithfully

### **Baker Tilly Corporate Finance LLP**

*Regulated by the Institute of Chartered Accountants in England and Wales*

Baker Tilly Corporate Finance LLP is a limited liability partnership registered in England and Wales, registered no. OC325347. A list of the names of members is open to inspection at the registered office 25 Farringdon Street, London, EC4A 4AB.

**SECTION F – HISTORICAL FINANCIAL INFORMATION OF BUSHVELD RESOURCES LIMITED FOR THE PERIOD FROM INCORPORATION ON 3 JUNE 2008 TO 28 FEBRUARY 2011**

**Consolidated statement of Comprehensive Income**

*for the nine months and two years ended 28 February 2011*

	<i>9 months to 28 February 2009</i>	<i>Year to 28 February 2010</i>	<i>Year to 28 February 2011</i>
	<i>£</i>	<i>£</i>	<i>£</i>
<b>Revenue</b>	–	–	–
<b>Expenditure</b>			
Administration fees	(2,475)	(1,657)	(1,710)
Incorporation charges	(1,295)	–	–
Legal and professional fees	–	(567)	–
Other	(514)	(423)	(551)
<b>Total operating loss</b>	<u>(4,284)</u>	<u>(2,647)</u>	<u>(2,261)</u>
Finance income	–	–	1,360
Foreign exchange gain/(loss)	–	367	(54,205)
<b>Loss for the period/year and total comprehensive income attributable to equity holders of parent company</b>	<u>(4,284)</u>	<u>(2,280)</u>	<u>(55,106)</u>
Attributable to:			
Owners of the parent company	(4,284)	(2,280)	(55,106)
Non-controlling interests	–	–	–
	<u>(4,284)</u>	<u>(2,280)</u>	<u>(55,106)</u>

Operating losses all derive from continuing operations.

## Consolidated Statement of Changes in Equity

for the nine months and two years ended period ended 28 February 2011

	Attributable to the owners of the parent company			Non- controlling Total Interests	Equity
	Share Capital	Retained Loss	Total		
	£	£	£	£	£
On Incorporation	3	–	3	–	3
Comprehensive income for the period	–	(4,284)	(4,284)	–	(4,284)
<b>Balance at 28 February 2009</b>	<b>3</b>	<b>(4,284)</b>	<b>(4,281)</b>	<b>–</b>	<b>(4,281)</b>
Shares issued	97	–	97	–	97
Comprehensive income for the year	–	(2,280)	(2,280)	–	(2,280)
Acquisition of prospecting right 95	–	–	–	6,872	6,872
<b>Balance at 28 February 2010</b>	<b>100</b>	<b>(6,564)</b>	<b>(6,464)</b>	<b>6,872</b>	<b>408</b>
Comprehensive income for the year	–	(55,106)	(55,106)	–	(55,106)
Acquisition of prospecting right 95	–	–	–	255,347	255,347
<b>Balance at 28 February 2011</b>	<b>100</b>	<b>(61,670)</b>	<b>(61,570)</b>	<b>262,219</b>	<b>200,649</b>

## Consolidated Statement of Financial Position

for the nine months and two years ended period ended 28 February 2011

		28 February 2009	28 February 2010	28 February 2011
	Note	£	£	£
<b>Assets</b>				
<b>Non-current assets</b>				
Property, plant & equipment	5	–	–	2,259
Intangible Assets	6	–	25,962	1,034,945
<b>Total non-current assets</b>		–	25,962	1,037,204
<b>Current assets</b>				
Other receivables	7	–	–	95,557
Cash and cash equivalents		–	240,686	34,023
<b>Total current assets</b>		–	240,686	129,580
<b>Total assets</b>		–	266,648	1,166,784
<b>Current liabilities</b>				
Trade payables		–	–	(10,652)
Borrowings	8	(1,949)	(245,249)	(947,100)
Other payables	9	(2,332)	(20,991)	(2,206)
Taxation		–	–	(6,177)
<b>Total current liabilities</b>		(4,281)	(266,240)	(966,135)
<b>Net (liabilities)/assets</b>		(4,281)	408	200,649
<b>Equity and reserves</b>				
Share capital	10	3	100	100
Retained loss		(4,284)	(6,564)	(61,670)
Total equity attributable to:				
Equity holders of the parent company		(4,281)	(6,464)	(61,570)
Non-controlling interest		–	6,872	262,219
<b>Total equity</b>		(4,281)	408	200,649



**Consolidated statement of Cash Flows***for the nine months and two years ended period ended 28 February 2011*

	<i>9 months to 28 February 2009 £</i>	<i>Year to 28 February 2010 £</i>	<i>Year to 28 February 2011 £</i>
<b>Loss of the period/year</b>	(4,284)	(2,280)	(55,106)
Less: Finance income	–	–	(1,360)
Less: Foreign exchange (gain)/loss	–	(367)	54,205
(Increase)/decrease in receivables	–	–	(95,557)
Increase/(decrease) in payables	2,335	19,090	(2,261)
<b>Net cash flow from operations</b>	<u>(1,949)</u>	<u>16,443</u>	<u>(100,079)</u>
<b>Investing activities:</b>			
Prospecting expenditure	–	(19,090)	(752,669)
Property, plant & equipment acquired	–	–	(3,226)
<b>Net cash flow from Investing activities</b>	<u>–</u>	<u>(19,090)</u>	<u>(755,895)</u>
<b>Financing activities:</b>			
Increase/(decrease) in borrowings	1,949	242,966	702,156
Finance income	–	–	1,360
Foreign exchange gain/(loss)	–	367	(54,205)
<b>Net cash flow from Financing activities</b>	<u>1,949</u>	<u>243,333</u>	<u>649,311</u>
<b>Net Cash Flow</b>	–	240,686	(206,663)
Cash at beginning of period/year	–	–	240,686
<b>Cash at end of period/year</b>	<u>–</u>	<u>240,686</u>	<u>34,023</u>

## Notes to the Bushveld historical financial information

### 1. Corporate Information and Activities

Bushveld Resources Limited (“Bushveld Resources”) was incorporated as Bushveld Platinum Limited on 3 June 2008. It changed its name to Bushveld Resources Limited on 18 February 2011.

The Bushveld Resources Group comprises Bushveld Resources Limited, a company registered in Guernsey, and its South African subsidiaries Pamish Investments No 39 (Proprietary) Limited (“Pamish”), in which Bushveld Resources holds a 64 per cent. equity interest, and Frontier Platinum Resources (Proprietary) Limited (“Frontier Platinum”), in which Bushveld Resources holds a 100 per cent. equity interest.

The minority shareholder of Pamish is Izingwe Capital (Proprietary) Limited (“Izingwe”).

As set out in note 15 Bushveld subsequently acquired a 55 per cent. equity interest in Amaraka Investments no 85 (Proprietary) Limited (“Amaraka”) with effect from 13 May 2011.

The minority shareholders of Amaraka are Pamish Investments no 63 (Proprietary) Limited (which is wholly owned by VM Investment Company (Proprietary) Limited (“VMI”), a related party), and Afro Multi Minerals (Proprietary) Limited (“AMM”).

As at 28 February 2011 the Bushveld Resources Group comprised the following:

<i>Company</i>	<i> Holding</i>	<i>Country of incorporation</i>	<i>Nature of Activities</i>
Bushveld Resources	parent	Guernsey	Holding co.
Pamish 39	64%	South Africa	Iron Ore exploration – prospecting right 95
Frontier Platinum	100%	South Africa	Group support services

Bushveld Resources’s ultimate parent company is Mineral Wealth International Limited (“MWI”), a company incorporated in Guernsey.

### 2. Significant Accounting Policies

#### *Basis of accounting*

The Bushveld Resources historical financial information has been prepared under the historical cost convention in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union.

#### *Basis of consolidation*

The Bushveld Resources historical financial information includes that of Bushveld and its subsidiaries. The results of the subsidiaries are effective from the date of acquisition.

On acquisition the Bushveld Resources Group recognises the subsidiary’s identifiable assets, liabilities and contingent liabilities at fair value. Any excess cost of shares acquired over the fair value of the subsidiaries’ identifiable net assets at the dates of acquisition is expressed as goodwill.

Goodwill is recognised as an asset and reviewed for impairment at least annually. It is allocated to cash generating units which represent the Bushveld Resources Group’s investment in each country of operation. When determining whether goodwill is impaired, the carrying value of the cash generating unit is adjusted to include the goodwill attributable to the non-controlling interest when the non-controlling interest has been measured as a proportionate share of the net identifiable assets of the subsidiary. Impairment losses are recognised immediately in profit or loss and allocated to non-controlling interests on the same basis as the profit or loss of the subsidiary. Impairment losses are not subsequently reversed.

All intercompany transactions, balances, income and expenses are eliminated in full on consolidation.

## ***Foreign currencies***

### *Functional and presentational currency*

The Rand is the local currency in South Africa and is the functional currency of Bushveld's subsidiaries. For reporting purposes has been translated into sterling ("GBP"), the currency of the United Kingdom.

### *Transactions and balances*

Transactions in foreign currencies are initially recorded at the rates of exchange prevailing on the dates of the transaction. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currency are translated into the reporting currency at the rate prevailing on that date.

Non-monetary assets and liabilities are carried at cost and are translated into the reporting currency at the rate prevailing on the balance sheet date.

## ***Revenue recognition***

### *Finance income*

Interest revenue is recognised when it is probable that the economic benefits will flow to the Bushveld Resources Group and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

## ***Intangible exploration and evaluation assets***

All costs associated with mineral exploration and evaluation including the costs of acquiring prospecting licences, mineral production licences and annual licences fees, rights to explore, topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling and activities to evaluate the technical feasibility and commercial viability of extracting a mineral resource, are capitalised as intangible exploration and evaluation assets and subsequently measured at cost.

Where a third party has transferred control of a prospecting right to a subsidiary of the Bushveld Resources Group in return for being granted a certain interest in that subsidiary, the resulting net asset value ascribed to the non-controlling interest is considered to be the relevant acquisition cost of the prospecting right, and is capitalised accordingly.

If an exploration project is successful, the related expenditures will be transferred at cost to plant and equipment and amortised over the estimated life of the commercial ore reserves on a unit of production basis (with this charge being taken through profit or loss). Where a project does not lead to the discovery of commercially viable quantities of mineral resources and is relinquished, abandoned, or is considered to be of no further commercial value to Bushveld Resources, the related costs are written off to profit or loss with immediate effect.

The recoverability of deferred exploration costs is dependent upon the discovery of economically viable ore reserves, the ability of Bushveld Resources to obtain necessary financing to complete the development of ore reserves and future profitable production or proceeds from the extraction thereof.

## ***Impairment of exploration and evaluation assets***

Whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, the asset is reviewed for impairment. An asset's carrying value is written down to its estimated recoverable amount (being the higher of the fair value less costs to sell and value in use) if that is less than the asset's carrying value. Impairment losses are recognised in profit or loss immediately.

An impairment review is undertaken when indicators of impairment arise but typically when one of the following circumstances applies:

- unexpected geological occurrences that render the resources uneconomic;

- title to the asset is compromised;
- variations in mineral prices that render the project uneconomic; or
- Bushveld Resources determines that it no longer wishes to continue to evaluate or develop the field.

### ***Plant and equipment***

Plant and equipment assets are stated at historical cost.

Depreciation is provided on all plant and equipment assets at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life as follows:

- Computers over 2 years

### ***Financial assets and liabilities***

#### *Trade and other receivables*

Trade and other receivables are stated at the fair value of the consideration receivable less any impairment. Impairment provisions are recognised when there is objective evidence that the Bushveld Resources Group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

They are subsequently measured at amortised cost, less any impairment, using the effective interest rate method.

#### *Trade and other payables*

Trade and other payables are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

#### *Cash and cash equivalents*

Cash and cash equivalents comprise cash at hand and deposits on a term of not greater than three months.

#### *Share capital*

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax from proceeds.

### ***Taxation***

The tax charge is based on taxable profit for the year. The Bushveld Resources Group's liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amount of assets and liabilities in the historical financial information and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method.

Deferred tax liabilities are 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. Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based upon rates enacted and substantively enacted at the balance sheet date. Deferred tax is charged or credited to profit or loss, except when it relates to items credited or charged to other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income.

### ***Segmental reporting***

The reporting segments are identified by the directors of Bushveld Resources (who are considered to be the chief operating decision makers) by the way that Bushveld's operations are organised. As at 28 February 2011 the company operated within one operational division comprising the exploration for, and development of, Iron Ore assets in South Africa.

### ***Use of estimates and judgments***

The preparation of the Bushveld Resources historical financial information in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal the actual results. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Management's only critical estimate and judgement in determining the value of assets, liabilities and equity is the valuation of intangible exploration assets.

The valuation of intangible exploration assets is dependent upon the discovery of economically recoverable deposits which, in turn, is dependent on future Iron Ore prices, future capital expenditures and environmental and regulatory restrictions.

### ***Accounting standards and interpretations not applied***

The following standards and interpretations relevant to the Bushveld Resources Group were in issue but not yet effective or endorsed (unless otherwise stated) as at the date of the Bushveld Resources historical financial information, and have not been applied:

		<i>Effective Date</i>
IFRS 7	Financial Instruments: Disclosures – Amendments; Disclosures – Transfers of Financial Assets	1 July 11
IFRS 1	First-time Adoption of IFRS – Amendment; Severe Hyperinflation and Removal of Fixed Dates for First-Time Adopters	1 July 11
IAS 12	Income Taxes – Amendment; Deferred Tax: Recovery of Underlying Assets	1 January 12
IFRS 9	Financial Instruments	1 January 15
IFRS 10	Consolidated Financial Statements	1 January 13
IFRS 11	Joint Arrangements	1 January 13
IFRS 12	Disclosure of Interests in Other Entities	1 January 13
IFRS 13	Fair Value Measurement	1 January 13
IAS 27	Separate Financial Statements (as amended 2011)	1 January 13
IAS 28	Investments in Associates and Joint Ventures (as amended 2011)	1 January 13

The Directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the financial information of the Bushveld Resources Group.

### ***Going Concern***

The Directors have a reasonable expectation that Bushveld Resources and the Bushveld Resources Group have adequate resources to continue in operational existence for the foreseeable future, with this expectation being based on the continued financial support of Bushveld Minerals Limited, which has formally confirmed that it will provide such support.

As such the Bushveld Resources Group historical financial information has been prepared on a going concern basis.

### 3. Segmental information

The Bushveld Resources Group has one segment being the exploration for Iron Ore in the Mogalakwena District located in the Limpopo Province of South Africa by its 64 per cent. subsidiary Pamish. The Bushveld Resources Group's assets and liabilities solely relate to that segment.

### 4. Taxation

#### *Current tax*

The group's taxable loss for each period/year arises in Guernsey and accordingly a tax rate of nil per cent. is applicable thereon.

#### *Deferred tax*

	<i>28 February 2009</i>	<i>28 February 2010</i>	<i>28 February 2011</i>
	£	£	£
Deferred tax liability in respect of capitalised exploration costs	–	4,000	220,000
Deferred tax asset in relation to tax losses	–	(4,000)	(220,000)
	<u>–</u>	<u>–</u>	<u>–</u>

The applicable taxation rate in South Africa is 28 per cent.

### 5. Property Plant and Equipment

	<i>Computer Equipment £</i>
<b>Cost</b>	
On incorporation and at 28 February 2009 and 28 February 2010	–
Additions	3,226
<b>At 28 February 2011</b>	<u>3,226</u>
<b>Depreciation</b>	
On incorporation and at 28 February 2009 and 28 February 2010	–
Charge for year	(967)
<b>At 28 February 2011</b>	<u>(967)</u>
<b>Net Book Value on incorporation and at 28 February 2009 and 28 February 2010</b>	<u>–</u>
<b>Net Book Value at 28 February 2011</b>	<u>2,259</u>

## 6. Intangible assets

	<i>Exploration Expenditure</i>
	£
<b>At 28 February 2009</b>	–
Capitalised exploration expenditure incurred in year (Pamish)	19,090
Prospecting right 95 acquisition cost (Pamish)	6,872
	<hr/>
<b>At 28 February 2010</b>	25,962
	<hr/>
Capitalised exploration expenditure incurred in year (Pamish)	753,636
Prospecting right 95 acquisition cost (Pamish)	255,347
	<hr/>
<b>At 28 February 2011</b>	<u>1,034,945</u>

Prospecting right 95 was acquired from the minority shareholder of Pamish, in return for that minority shareholder (Izingwe) being granted a 36 per cent. interest in Pamish.

The Directors do not consider there to have been a material movement in the SAR to GBP exchange rate between each period/year end, and accordingly have applied a consistent exchange rate when converting capitalised exploration expenditure (dominated in SAR) into GBP (the presentational currency) as at each period/year end.

## 7. Other receivables

	<i>28 February 2009</i>	<i>28 February 2010</i>	<i>28 February 2011</i>
	£	£	£
Related party receivables	–	–	95,557
	<hr/>	<hr/>	<hr/>
	–	–	95,557
	<hr/>	<hr/>	<hr/>

The above balances are owed by VMI and Amaraka, as set out in note 12.

VMI is considered to be a related party to the Bushveld Resources Group due to common directorships and shareholders.

Amaraka was acquired by the Bushveld Resources Group after 28 February 2011, and again due to common shareholdings is also considered to be a related party to the Bushveld Resources Group.

## 8. Borrowings

	<i>28 February 2009</i>	<i>28 February 2010</i>	<i>28 February 2011</i>
	£	£	£
Related party borrowings	1,949	245,249	947,100
	<hr/>	<hr/>	<hr/>
	1,949	245,249	947,100
	<hr/>	<hr/>	<hr/>

The above borrowings are owed to MWI, VML Resources Limited (“VML”) and African Resources Consulting Limited (“African Resources”), as set out in note 12.

MWI is the parent company of Bushveld Resources and therefore a related party to the Bushveld Resources Group.

VML and African Resources are both considered to be related parties to the Bushveld Resources Group due to common shareholders and directorships.

All of the above balances are considered to be unsecured, non interest bearing and with no fixed repayment date.

## 9. Other payables

	28 February 2009	28 February 2010	28 February 2011
	£	£	£
Related party payables	2,332	1,901	2,206
Other payables	–	19,090	–
	<u>2,332</u>	<u>20,991</u>	<u>2,206</u>

The related party payable is owed to Oak Trust, as set out in note 12. Oak Trust is an entity related to Oak Directors Ltd, the nominee director of Bushveld Resources acting on behalf of its parent company, and is accordingly considered a related party to the Bushveld Resources Group.

The other payable is owed to Izingwe, the non-controlling interest of Pamish.

Both of the above balances are considered to be unsecured and non interest bearing. The amounts owed to Izingwe are considered to have no fixed repayment date while the amounts owed to Oak Trust are settled in the financial year following their incurrence.

## 10. Share capital

	Number	£
Authorised: ordinary shares of £1.00 each:		
At 28 Feb 2009, 28 Feb 2010 and 28 Feb 2011	<u>1,000</u>	<u>1,000</u>
Allotted, issued and fully paid ordinary shares of £1.00 each:		
At 28 February 2009	<u>3</u>	<u>3</u>
Issued in year	<u>97</u>	<u>97</u>
At 28 February 2010 and 28 February 2011	<u>100</u>	<u>100</u>

Bushveld Resources issued 3 ordinary shares to its parent company during the period ended 28 February 2009, and a further 97 during the year ended 28 February 2010. These were not fully paid as at each period/year end.

## 11. Financial instruments

### *Capital risk management*

Bushveld Resources manages its capital to ensure that entities in the Bushveld Resources Group will be able to continue as a going concern while maximising the return to stakeholders. The overall capital risk management strategy of Bushveld Resources and the Bushveld Resources Group is to minimise costs and liquidity risk.

The capital structure of Bushveld Resources consists of equity attributable to equity holders of the parent, comprising issued share capital, as disclosed in note 10, and in the Statement of Changes in Equity.

Bushveld Resources is exposed to a number of risks through its normal operations, the most significant of which are credit and liquidity risks. The management of these risks is vested in the Board of Directors.

### *Credit risk*

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at each period/year end:



	<i>28 February</i> 2009	<i>28 February</i> 2010	<i>28 February</i> 2011
	£	£	£
Amaraka	–	–	41,627
VMI	–	–	53,930
Cash and cash equivalents	–	33	34,023
	<u>–</u>	<u>33</u>	<u>129,580</u>

Credit risk is managed through only providing funding to related parties and/or only holding cash balances at recognised financial institutions with high credit ratings.

### ***Liquidity risk***

The following are the contractual maturities of financial liabilities as at each period/year end.

	<i>28 February</i> 2009	<i>28 February</i> 2010	<i>28 February</i> 2011
	£	£	£
No fixed repayment date	1,949	245,249	963,929
Settled in financial year following incurrence	2,332	20,991	2,206
	<u>4,281</u>	<u>266,240</u>	<u>966,135</u>

The Directors are of the opinion that given that the majority of the above balances are due to related parties (see notes 8, 9 and 12) there is no need to manage liquidity risk further.

### ***Foreign exchange risk***

The Bushveld Resources Group is exposed to movements between the South African Rand and GBP.

This risk principally arises on the related party loan from MWI (see note 12), which is denominated in US\$.

This risk is managed through the ongoing monitoring of this exchange rate, although at present it is not considered necessary (or economically viable) to hedge this position.

### ***Fair Values***

The fair values of the financial assets and liabilities are materially consistent with the carrying values.

## **12. Related party transactions**

### **Balance due from related parties at the end of each period:**

	<i>28 February</i> 2009	<i>28 February</i> 2010	<i>28 February</i> 2011
	£	£	£
Amaraka	–	–	41,627
VMI	–	–	53,930
	<u>–</u>	<u>–</u>	<u>95,557</u>

**Balance due to related parties at the end of the period:**

	<i>28 February</i> 2009	<i>28 February</i> 2010	<i>28 February</i> 2011
	£	£	£
VML	–	2,647	4,660
African Resources	1,949	1,949	1,949
MWI	–	240,653	940,491
Oak Trust	2,335	1,901	2,206
	<u>4,284</u>	<u>247,150</u>	<u>949,306</u>

The balances owed to VML are denominated in both US\$ and GBP (as at 28 February 2010 – £433 denominated in US\$ and £2,214 denominated in GBP; as at 28 February 2011: £4,165 denominated in US\$ and £495 denominated in GBP).

The balance owed to African Resources is denominated in SAR.

The balance owed to MWI is denominated in US\$.

**Transactions with related parties during the period:**

	<i>As at</i> <i>28 February</i>		<i>As at</i> <i>28 February</i>		<i>As at</i> <i>28 February</i>		
	<i>On Incorp.</i>	<i>Adv'd/(rec'd)</i>	<i>2009</i>	<i>Adv'd/(rec'd)</i>	<i>2010</i>	<i>Adv'd/(rec'd)</i>	<i>2011</i>
	£	£	£	£	£	£	£
Amaraka	–	–	–	–	–	(41,627)	(41,627)
VMI	–	–	–	–	–	(53,930)	(53,930)
VML	–	–	–	2,647	2,647	2,013	4,660
Oak Trust	–	2,335	2,335	(434)	1,901	305	2,206
African Resources	–	1,949	1,949	–	1,949	–	1,949
MWI	–	–	–	–	–	940,491	940,491

***VML Resources consultancy agreement***

On 6 April 2011 the Greenhills Group entered into a consultancy agreement with VML whereby the Greenhills Group would pay:

- \$1 million (£612,907) upon signature;
- \$1 million (c. £612,900) upon admission of Greenhill's shares to an appropriate exchange within 12 months; and
- \$0.5 million (c. £306,500) per annum for ongoing consultancy services.

It was further agreed that the ongoing annual costs would be shared equally between the Greenhills Group and the Bushveld Resources Group.

This agreement was subsequently terminated such that Bushveld Resources was no longer required to meet half of the ongoing annual fee of \$0.5 million.

The Bushveld Resources Group utilises office space leased by VMI, for which no charge is levied against the Bushveld Resources Group.

During the nine months and two years ended 28 February 2011 no compensation was paid to key management.

**13. Contingent liabilities**

There were no contingent liabilities as at 28 February 2011.

#### **14. Capital commitments**

There were no capital commitments as at 28 February 2011 other than immaterial licence fees in respect of the Prospecting Right 95.

#### **15. Post Balance Sheet Events**

##### ***Acquisition of subsidiary***

On 13 May 2011 Bushveld Resources acquired a 55 per cent. equity interest in Amaraka. Amaraka had previously been owned (30 per cent.) by Pamish 63 (a wholly owned subsidiary of VMI) and AMM (70 per cent.).

Under the terms of this contract Bushveld Resources became committed to financially support the exploration and development of Prospecting Right 438 up to a total of SAR 14 million (c. £1.3 million), in return for AMM transferring this prospecting right into Amaraka.

This transaction involved the issue of new shares to all three parties such that the resultant shareholdings were 55 per cent. (Bushveld Resources), 31.5 per cent. (AMM) and 13.5 per cent. (Pamish 63: a company wholly-owned by VMI).

As at this date, the book value of the net assets of Amaraka were:

	£
Capitalised exploration costs	88,540
Other debtors	9
Loan from Bushveld Resources Group	(88,540)
<b>Net assets</b>	<u>9</u>
<b>Share capital</b>	<u>9</u>

##### ***Capitalisation of MWI loan***

Prior to Admission an agreement was entered into whereby the entire amount owed by the Bushveld Group to MWI would be converted into new ordinary shares of Bushveld Resources, as set out in Section 11.2(j)(ii) of Part VIII of this document.

##### ***Changes in parent understanding***

Subsequent to the capitalisation of the MWI loan (per above) MWI sold half of its shareholdings in Bushveld Resources to Obtala Resources Ltd ("Obtala"), followed by both of Obtala's and MWI's interests in Bushveld Resources being transferred to Bushveld, in return for shares in Bushveld (and under certain conditions an element of cash), further details of which are set out in Section 11.2(m) of Part VIII of this document.

##### ***Consulting agreement***

Prior to Admission a consulting agreement was signed by Bushveld Resources with VMI for the provision of consulting services at various rates depending on the specific service provided.

##### ***Additional investments in Amaraka***

Prior to Admission Pamish 63 transferred its 13.5 per cent. interest in Amaraka to Bushveld Resources for SAR 1,000,000 (c. £91,000). Prior to this, Pamish 63 had settled all its obligations arising from the original acquisition of its holding, and no further commitments in respect of Amaraka or 438 PR were therefore assumed by Bushveld Resources.

## **SECTION G – ACCOUNTANTS’ REPORT ON THE HISTORICAL INTERIM FINANCIAL INFORMATION OF THE BUSHVELD GROUP**

The following is the full text of a report on Bushveld Resources Limited from Baker Tilly Corporate Finance LLP, the Reporting Accountants, to the Directors of Bushveld Minerals Limited.



The Directors  
Bushveld Minerals Limited  
18-20 Le Pollet  
St Peter Port  
Guernsey  
GY1 1WH

2012

Dear Sirs

### **Independent Review Report: Bushveld Resources Limited and its subsidiary undertakings (together, the “Bushveld Resources Group”)**

We have been instructed by Bushveld Minerals Limited (the “Company”) to review the interim financial information relating to the Bushveld Resources Group for the six month period ended 31 August 2011 (“Bushveld Resources Group Interim Financial Information”) set out in Section H of Part IV of the admission document of the Company dated 23 March 2012 (“Admission Document”). We have read the other information in the Admission Document and considered whether it contains any apparent misstatements or material inconsistencies with the Bushveld Resources Group Interim Financial Information.

This report is has been prepared in accordance with the requirements of International Standard on Review Engagements (UK and Ireland) 2410, “Review of Interim Financial Information Performed by the Independent Auditor of the Entity” issued by the Auditing Practices Board in the United Kingdom (“ISRE 2410”), as if it applied to the the Company’s auditor and for no other purpose. This report, including the conclusion, has been prepared solely for the Company for the purposes of the Admission Document and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than a person as and to the extent provided by ISRE 2410, for our work, for this report, or for the opinions we have formed or consenting to its inclusion in the Admission Document.

#### **Responsibilities**

The Bushveld Resources Group Interim Financial Information is the responsibility of, and has been approved by, the directors of the Company (“the Directors”) and has been prepared by applying the accounting policies and presentation consistent with those that will be adopted in the Company’s annual financial statements and the requirements of paragraph 20.6 of Annex I to the Prospectus Rules as if those rules applied. The Bushveld Resources Group Interim Financial Information has been prepared in accordance with International Financial Reporting Standards and International Financial Reporting Interpretations Committee (“IFRIC”) pronouncements as adopted by the European Union.

Our responsibility is to express to the Company a conclusion on the Bushveld Resources Group Interim Financial Information, for the purposes of the Admission Document, based on our review.

### **Scope of review**

We conducted our review in accordance with the Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom and ISRE 2410 as if it applied to the Bushveld Minerals Limited's auditor. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK and Ireland) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the Bushveld Group Interim Financial Information.

### **Conclusion**

Based on our review, nothing has come to our attention that causes us to believe that, for the purposes of the Admission Document, the Bushveld Resources Group Interim Financial Information has not been prepared, in all material respects, with the accounting policies and presentation consistent with those that will be adopted in Bushveld Minerals Limited's annual financial statements.

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.

### **Declaration**

For the purposes of part (a) of Schedule Two to the AIM Rules we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import.

Yours faithfully

### **Baker Tilly Corporate Finance LLP**

*Regulated by the Institute of Chartered Accountants in England and Wales*

Baker Tilly Corporate Finance LLP is a limited liability partnership registered in England and Wales, registered no. OC325347. A list of the names of members is open to inspection at the registered office 25 Farringdon Street, London, EC4A 4AB.

**SECTION H – UNAUDITED INTERIM FINANCIAL INFORMATION OF BUSHVELD RESOURCES LIMITED FOR THE SIX MONTHS ENDED 31 AUGUST 2011**

**Consolidated Statement of Comprehensive Income**

*for the six months ended 31 August 2011*

	<i>31 August 2010 (Unaudited) £</i>	<i>31 August 2011 (Unaudited) £</i>
<b>Revenue</b>	–	–
<b>Expenditure</b>		
Administration fees	–	(1,625)
Other	(23)	(345)
<b>Total operating loss</b>	<u>(23)</u>	<u>(1,970)</u>
Unrealised foreign exchange (loss)/gain	<u>(32,855)</u>	<u>38,443</u>
<b>Profit/(loss) for the period and total comprehensive income/(loss) attributable to equity holders of parent company</b>	<u>(32,878)</u>	<u>36,473</u>
Attributable to:		
Owners of the parent company	(32,878)	36,473
Non-controlling interests	–	–
	<u>(32,878)</u>	<u>36,473</u>

Operating losses all derive from continuing operations.

## Consolidated Statement of Changes in Equity

for the six months ended 31 August 2011

	Attributable to the owners of the parent company			Non- controlling Total Interests	Equity
	Share Capital	Retained Loss	Total		
	£	£	£	£	£
<b>Balance at</b>					
<b>28 February 2010</b>	100	(6,564)	(6,464)	–	(6,464)
Comprehensive (loss)/ income for the period	–	(32,878)	(32,878)	–	(32,878)
Acq. of prospecting right 95	–	–	–	215,000	215,000
<b>Balance at</b>					
<b>31 August 2010</b> (unaudited)	100	(39,442)	(39,342)	215,000	175,658
<b>Balance at</b>					
<b>28 February 2011</b>	100	(61,670)	(61,570)	262,219	200,649
Comprehensive income for the period	–	36,473	36,473	–	36,473
Acq. of prospecting right 95	–	–	–	11,387	11,387
Acq. of prospecting right 438	–	–	–	104,119	104,119
<b>Balance at</b>					
<b>31 August 2011</b> (unaudited)	100	(25,197)	(25,097)	377,725	352,628

## Consolidated Statement of Financial Position

as at 31 August 2011

	<i>Note</i>	<i>28 February 2011</i>	<i>31 August 2011 (Unaudited)</i>
		£	£
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	5	2,259	4,144
Intangible assets	6	1,034,945	1,791,422
<b>Total non-current assets</b>		<u>1,037,204</u>	<u>1,795,566</u>
<b>Current assets</b>			
Other receivables	7	95,557	105,348
Cash and cash equivalents		34,023	5,513
<b>Total current assets</b>		<u>129,580</u>	<u>110,861</u>
<b>Total assets</b>		<u>1,166,784</u>	<u>1,906,427</u>
<b>Current liabilities</b>			
Trade payables		(10,652)	(84,994)
Borrowings	8	(947,100)	(1,467,236)
Other payables	9	(2,206)	(1,569)
Taxation		(6,177)	–
<b>Total current liabilities</b>		<u>(966,135)</u>	<u>(1,553,799)</u>
<b>Net (liabilities)/assets</b>		<u>200,649</u>	<u>352,628</u>
<b>Equity</b>			
Share capital	10	100	100
Retained loss		(61,670)	(25,197)
<b>Total equity attributable to:</b>			
Equity holders of the parent company		(61,570)	(25,097)
Non-controlling interest		262,219	377,725
<b>Total equity</b>		<u>200,649</u>	<u>352,628</u>



## Consolidated Statement of Cash Flows

for the six months ended 31 August 2011

	<i>31 August 2010 (unaudited) £</i>	<i>31 August 2011 (unaudited) £</i>
<b>(Loss)/profit for the period/year</b>	(32,878)	36,473
Less: Finance cost/(income)	32,855	(38,443)
(Increase)/decrease in receivables	(42,137)	(9,791)
Increase/(decrease) in payables	48,555	(20,375)
<b>Net cash flow from operations</b>	<u>6,395</u>	<u>(32,136)</u>
<b>Investing activities:</b>		
Prospecting expenditure	(561,394)	(552,390)
Property, plant & equipment acquired	(2,797)	(1,926)
<b>Net cash flow from Investing activities</b>	<u>(564,191)</u>	<u>(554,316)</u>
<b>Financing activities:</b>		
Finance (cost)/income	(32,855)	38,443
Increase/(decrease) in borrowings and other payables	603,557	519,499
<b>Net cash flow from Financing activities</b>	<u>570,702</u>	<u>557,942</u>
<b>Net Cash Flow</b>	12,906	(28,510)
Cash at beginning of period/year	33	34,023
<b>Cash at end of period/year</b>	<u>12,939</u>	<u>5,513</u>

## Notes to the Bushveld unaudited interim historical consolidated financial information

### 1. Corporate Information and Activities

Bushveld Resources Limited (“Bushveld Resources”) was incorporated as Bushveld Platinum Limited on 3 June 2008. It changed its name to Bushveld Resources Limited on 18 February 2011.

The Bushveld Resources Group comprises Bushveld Resources Limited, a company registered in Guernsey, and its South African subsidiaries: Pamish Investments No 39 (Proprietary) Limited (“Pamish”), in which Bushveld holds a 64 per cent. equity interest; Amaraka Investments No 85 (Proprietary) Limited (“Amaraka”), in which Bushveld Resources holds a 55 per cent. equity interest; and Frontier Platinum Resources (Proprietary) Limited (“Frontier Platinum”), in which Bushveld Resources holds a 100 per cent. equity interest.

The minority shareholder of Pamish is Izingwe Capital (Proprietary) Limited (“Izingwe”).

The minority shareholders of Amaraka are Pamish Investments No 63 (Proprietary) Limited (which is wholly owned by VM Investment Company (Proprietary) Limited (“VMI”), a related party) and Afro Multi Minerals (Proprietary) Limited (“AMM”).

As at 28 February 2011 the Bushveld Group was comprised as follows:

<i>Company</i>	<i> Holding</i>	<i>Country of incorporation</i>	<i>Nature of Activities</i>
Bushveld Resources	parent	Guernsey	Holding co.
Pamish	64%	South Africa	Iron Ore exploration – prospecting right 95
Amaraka	55%	South Africa	Iron Ore exploration – prospecting right 438
Frontier Platinum	100%	South Africa	Group support services

Bushveld Resources’s ultimate parent company is Mineral Wealth International Limited (“MWI”), a company incorporated in Guernsey.

### 2. Significant Accounting Policies

#### *Basis of accounting*

The Bushveld Resources Group interim consolidated historical financial information has been prepared under the historical cost convention in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union.

#### *Basis of consolidation*

The Bushveld Resources Group interim consolidated historical financial information includes that of Bushveld Resources and its subsidiaries. The results of the subsidiaries are effective from the date of acquisition.

On acquisition the Bushveld Resources Group recognises the subsidiary’s identifiable assets, liabilities and contingent liabilities at fair value. Any excess cost of shares acquired over the fair value of the subsidiaries’ identifiable net assets at the dates of acquisition is expressed as goodwill.

Goodwill is recognised as an asset and reviewed for impairment at least annually. It is allocated to cash generating units which represent the Bushveld Resources Group’s investment in each country of operation. When determining whether goodwill is impaired, the carrying value of the cash generating unit is adjusted to include the goodwill attributable to the non-controlling interest when the non-controlling interest has been measured as a proportionate share of the net identifiable assets of the subsidiary. Impairment losses are recognised immediately in profit or loss and allocated to non-controlling interests on the same basis as the profit or loss of the subsidiary. Impairment losses are not subsequently reversed.

All intercompany transactions, balances, income and expenses are eliminated in full on consolidation.

## ***Foreign currencies***

### *Functional and presentational currency*

The Rand is the local currency in South Africa and is the functional currency of Bushveld Resources's subsidiaries. For reporting purposes has been translated into sterling ("GBP"), the currency of the United Kingdom.

### *Transactions and balances*

Transactions in foreign currencies are initially recorded at the rates of exchange prevailing on the dates of the transaction. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currency are translated into the reporting currency at the rate prevailing on that date.

Non-monetary assets and liabilities are carried at cost and are translated into the reporting currency at the rate prevailing on the balance sheet date.

## ***Revenue recognition***

### *Finance income*

Interest revenue is recognised when it is probable that the economic benefits will flow to the Bushveld Resources Group and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

### ***Intangible exploration and evaluation assets***

All costs associated with mineral exploration and evaluation including the costs of acquiring prospecting licences, mineral production licences and annual licences fees, rights to explore, topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling and activities to evaluate the technical feasibility and commercial viability of extracting a mineral resource, are capitalised as intangible exploration and evaluation assets and subsequently measured at cost.

Where a third party has transferred control of a prospecting right to a subsidiary of the Bushveld Resources Group in return for being granted a certain interest in that subsidiary, the resulting net asset value ascribed to the non-controlling interest is considered to be the relevant acquisition cost of the prospecting right, and is capitalised accordingly.

If an exploration project is successful, the related expenditures will be transferred at cost to plant and equipment and amortised over the estimated life of the commercial ore reserves on a unit of production basis (with this charge being taken through profit or loss). Where a project does not lead to the discovery of commercially viable quantities of mineral resources and is relinquished, abandoned, or is considered to be of no further commercial value to Bushveld Resources, the related costs are written off to profit or loss with immediate effect.

The recoverability of deferred exploration costs is dependent upon the discovery of economically viable ore reserves, the ability of Bushveld Resources to obtain necessary financing to complete the development of ore reserves and future profitable production or proceeds from the extraction thereof.

### ***Impairment of exploration and evaluation assets***

Whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, the asset is reviewed for impairment. An asset's carrying value is written down to its estimated recoverable amount (being the higher of the fair value less costs to sell and value in use) if that is less than the asset's carrying value. Impairment losses are recognised in profit or loss immediately.

An impairment review is undertaken when indicators of impairment arise but typically when one of the following circumstances applies:

- unexpected geological occurrences that render the resources uneconomic;
- title to the asset is compromised;
- variations in mineral prices that render the project uneconomic; or
- Bushveld Resources determines that it no longer wishes to continue to evaluate or develop the field.

### ***Plant and equipment***

Plant and equipment assets are stated at historical cost.

Depreciation is provided on all plant and equipment assets at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life as follows:

- Computers over 2 years

### ***Financial assets and liabilities***

#### *Trade and other receivables*

Trade and other receivables are stated at the fair value of the consideration receivable less any impairment. Impairment provisions are recognised when there is objective evidence that the Group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

They are subsequently measured at amortised cost, less any impairment, using the effective interest rate method.

#### *Trade and other payables*

Trade and other payables are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

#### *Cash and cash equivalents*

Cash and cash equivalents comprise cash at hand and deposits on a term of not greater than three months.

#### *Share capital*

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax from proceeds.

### ***Taxation***

The tax charge is based on taxable profit for the year. The Bushveld Resources Group's liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amount of assets and liabilities in the historical financial information and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method.

Deferred tax liabilities are 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. Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based upon rates enacted and substantively enacted at the balance sheet date. Deferred tax is charged or credited to profit or loss, except when it relates to items credited or charged to other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income.

### ***Segmental reporting***

The reporting segments are identified by the directors of Bushveld Resources (who are considered to be the chief operating decision makers) by the way that Bushveld Resources's operations are organised. As at 31 August 2011 the company operated within one operational division comprising the exploration for, and development of, Iron Ore assets in South Africa.

### ***Use of estimates and judgments***

The preparation of the Bushveld Resources interim historical financial information in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal the actual results. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Management's only critical estimate and judgement in determining the value of assets, liabilities and equity is the valuation of intangible exploration assets.

The valuation of intangible exploration assets is dependent upon the discovery of economically recoverable deposits which, in turn, is dependent on future Iron Ore prices, future capital expenditures and environmental and regulatory restrictions.

### ***Accounting standards and interpretations not applied***

The following standards and interpretations relevant to the Bushveld Resources Group were in issue but not yet effective or endorsed (unless otherwise stated) as at the date of the Bushveld Resources interim historical financial information, and have not been applied:

		<i>Effective Date</i>
IFRS 7	Financial Instruments: Disclosures – Amendments; Disclosures – Transfers of Financial Assets	1 July 11
IFRS 1	First-time Adoption of IFRS – Amendment; Severe Hyperinflation and Removal of Fixed Dates for First-Time Adopters	1 July 11
IAS 12	Income Taxes – Amendment; Deferred Tax: Recovery of Underlying Assets	1 January 12
IFRS 9	Financial Instruments	1 January 15
IFRS 10	Consolidated Financial Statements	1 January 13
IFRS 11	Joint Arrangements	1 January 13
IFRS 12	Disclosure of Interests in Other Entities	1 January 13
IFRS 13	Fair Value Measurement	1 January 13
IAS 27	Separate Financial Statements (as amended 2011)	1 January 13
IAS 28	Investments in Associates and Joint Ventures (as amended 2011)	1 January 13

The Directors anticipate that the adoption of these Standards and Interpretations in future periods will have no material impact on the financial information of the Bushveld Resources Group.

### ***Going Concern***

The Directors have a reasonable expectation that Bushveld Resources and the Bushveld Resources Group have adequate resources to continue in operational existence for the foreseeable future, with this expectation being based on the continued financial support of Bushveld Minerals Limited, which has formally confirmed that it will provide such support.

As such the Bushveld Resources Group unaudited interim financial information has been prepared on a going concern basis.

### 3. Segmental information

The Bushveld Resources Group has one segment being the exploration for Iron Ore in the Mogalakwena District located in the Limpopo Province of South Africa by its 64 per cent. subsidiary Pamish 39 and 55 per cent. subsidiary Amaraka. The Group's assets and liabilities solely relate to that segment.

### 4. Taxation

#### *Current tax*

The group's taxable loss for each period/year arises in Guernsey and accordingly a tax rate of nil per cent. is applicable thereon.

#### *Deferred tax*

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
Deferred tax liability in respect of capitalised exploration costs	220,000	400,000
Deferred tax asset in relation to tax losses	(220,000)	(400,000)
	<u>–</u>	<u>–</u>

The applicable taxation rate in South Africa is 28 per cent.

### 5. Property, Plant and Equipment

	<i>Computer Equipment £</i>	<i>Total £</i>
<b>Cost</b>		
At 28 February 2011	3,226	3,226
Additions	1,926	1,926
<b>At 31 August 2011 (Unaudited)</b>	<u>5,152</u>	<u>5,152</u>
<b>Depreciation</b>		
At 28 February 2011	(967)	(967)
Charge for period	(41)	(41)
<b>At 31 August 2011 (Unaudited)</b>	<u>(1,008)</u>	<u>(1,008)</u>
<b>Net Book Value at 28 February 2011</b>	<u>2,259</u>	<u>2,259</u>
<b>Net Book Value at 31 August 2011 (Unaudited)</b>	<u>4,144</u>	<u>4,144</u>

## 6. Intangible assets

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	<i>£</i>	<i>£</i>
Capitalised exploration expenditure (Pamish)	772,726	1,115,798
Prospecting right 95 acquisition cost (Pamish)	262,219	273,606
Capitalised exploration expenditure obtained on acquisition of subsidiary (Amaraka)	–	88,540
Capitalised exploration expenditure incurred since acquisition of subsidiary (Amaraka)	–	209,359
Prospecting Right 438 acquisition cost (Amaraka)	–	104,119
<b>At 31 August 2011 (Unaudited)</b>	<u>1,034,945</u>	<u>1,791,422</u>

Prospecting right 95 was acquired from the minority shareholder of Pamish, in return for that minority shareholder (Izingwe) being granted a 36 per cent. interest in Pamish.

Prospecting Right 438 was acquired from one of the minority shareholders of Amaraka, in return for that minority shareholder (AMM) being granted a 31.5 per cent. interest.

## 7. Other receivables

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	<i>£</i>	<i>£</i>
Related party receivables	95,554	100,385
Taxation over-paid	–	1,193
Other	3	3,770
	<u>95,557</u>	<u>105,348</u>

The above related party receivables are owed by VMI and Amaraka, as set out in note 12.

VMI is considered to be a related party to the Bushveld Resources Group due to common directorships and shareholders.

Amaraka was acquired by the Bushveld Resources Group after 28 February 2011, and again due to common shareholdings is also considered to be a related party to the Bushveld Resources Group.

## 8. Borrowings

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	<i>£</i>	<i>£</i>
Related party borrowings	947,100	1,467,236
	<u>947,100</u>	<u>1,467,236</u>

The above borrowings were owed to MWI, VML Resources Limited (“VML”), Greenhills Resources Limited and its subsidiaries (the “Greenhills Group”) and African Resources Consulting Limited (“African Resources”), as set out in note 12.

MWI is the parent company of Bushveld Resources and therefore a related party to the Bushveld Resources Group.

The Greenhills Group, VML and African Resources are all considered to be related parties to the Bushveld Group due to common shareholders and directorships.

All of the above balances are considered to be unsecured, non interest bearing and with no fixed repayment date.

## 9. Other payables

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
<b>Related party payables</b>	2,206	1,569
	<u>2,206</u>	<u>1,569</u>

The above balances were owed to Oak Trust, as set out in note 12.

Oak Trust is an entity related to Oak Directors Ltd, the nominee director of Bushveld Resources acting on behalf of its parent company, and is accordingly considered a related party to the Bushveld Resources Group.

The above balances are considered to be unsecured, non interest bearing and are settled in the financial year following their incurrence.

## 10. Share capital

	<i>Number</i>	<i>£</i>
Authorised: ordinary shares of £1.00 each: <b>At 31 August 2011</b>	<u>1,000</u>	<u>1,000</u>
Allotted, issued and fully paid ordinary shares of £1.00 each: <b>At 31 August 2011</b>	<u>100</u>	<u>100</u>

## 11. Financial instruments

### *Capital risk management*

Bushveld Resources manages its capital to ensure that entities in the Bushveld Resources Group will be able to continue as a going concern while maximising the return to stakeholders. The overall capital risk management strategy of Bushveld Resources and the Bushveld Resources Group is to minimise costs and liquidity risk.

The capital structure of the Bushveld Resources Group consists of equity attributable to equity holders of the parent, comprising issued share capital, as disclosed in note 10, and in the Statement of Changes in Equity.

The Bushveld Group is exposed to a number of risks through its normal operations, the most significant of which are credit and liquidity risks. The management of these risks is vested in the Board of Directors.

### *Credit risk*

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at 31 August 2011 was:

	<i>£</i> <i>(unaudited)</i>
Due from related party (VMI)	100,385
Taxation over-paid	1,193
Other	3,770
Cash and cash equivalents	5,513
	<u>110,861</u>

Credit risk is managed through only providing funding to related parties and/or only holding cash balances at recognised financial institutions with high credit ratings.



### **Liquidity risk**

The following are the contractual maturities of financial liabilities as at each period/year end.

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
No fixed repayment date	963,929	1,552,230
Settled in financial year following incurrence	2,206	1,569
	<u>966,135</u>	<u>1,553,799</u>

The Directors are of the opinion that given that the majority of the above balances are due to related parties (see notes 8, 9 and 12) there is no need to manage liquidity risk further.

### **Foreign exchange risk**

The Bushveld Resources Group is exposed to movements between the South African Rand and GBP.

This risk principally arises on the related party loan from MWI (see note 12), which is denominated in US\$.

This risk is managed through the ongoing monitoring of this exchange rate, although at present it is not considered necessary (or economically viable) to hedge this position.

### **Fair Values**

The fair values of the financial assets and liabilities are materially consistent with the carrying values.

## **12. Related party transactions**

Balance due from related parties at the end of the period:

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
Amaraka	41,627	–
VMI	53,930	100,385
	<u>95,557</u>	<u>100,385</u>

Balance due to related parties at the end of the period:

	<i>28 February 2011</i>	<i>31 August 2011 (unaudited)</i>
	£	£
MWI	940,491	989,385
Greenhills Group	–	401,164
VML	4,660	74,738
Oak Trust	2,206	1,569
African Resources	1,949	1,949
	<u>949,306</u>	<u>1,468,805</u>

The balances owed to VML are denominated in both US\$ and GBP (as at 28 February 2011 – £4,165 denominated in US\$ and £495 denominated in GBP; as at 31 August 2011 – £74,738 denominated in US\$ and £nil denominated in GBP).

The balances owed to the Greenhills Group and African Resources are denominated in SAR.

The balance owed to MWI is denominated in US\$.

Transactions with related parties during the period:

	<i>As at</i> 28 February 2011 £	<i>(Advanced)</i> <i>/received</i> £	<i>Eliminated on</i> <i>acquisition</i> £	<i>As at</i> 31 August 2011 £
Amaraka	41,627	46,913	(88,540)	–
VMI	53,927	46,458	–	100,385
MWI	(940,401)	(48,984)	–	(989,385)
Greenhills Group	–	(401,164)	–	(401,164)
VML Resources	(4,660)	(70,078)	–	(74,738)
Oak Trust	(2,206)	637	–	(1,569)
African Resources	(1,949)	–	–	(1,949)

#### *VML consultancy agreement*

On 6 April 2011 the Greenhills Group entered into a consultancy agreement with VML whereby the Greenhills Group would pay:

- \$1 million (£612,907) upon signature;
- \$1 million (c. £612,900) upon admission of Greenhill's shares to an appropriate exchange within 12 months; and
- \$0.5 million (c. £306,500) per annum for ongoing consultancy services.

It was further agreed that the ongoing annual costs would be shared equally between the Greenhills Group and the Bushveld Resources Group.

This agreement was subsequently terminated such that the second fee of \$1 million and ongoing annual fee of \$0.5 million were no longer payable. As at 31 August 2011 £67,600 had been accrued (and capitalised as intangible exploration costs) in respect of the Bushveld Resources's Group share of the ongoing \$0.5 million annual fee, and these amounts were accordingly written back on the termination of the agreement.

The Bushveld Resources Group utilises office space leased by VMI, for which no charge is levied against the Bushveld Resources Group.

### **13. Contingent liabilities**

There were no contingent liabilities as at 31 August 2011.

### **14. Capital commitments**

There were no capital commitments as at 31 August 2011 other than immaterial licence fees in respect of Prospecting Right 95.

Prospecting Right 438 is currently being renewed, and only once this renewal procedure is complete will the relevant prospecting fees be finalised. However it is believed that they will be of the same quantum on those for Prospecting Right 95.

### **15. Acquisition of Subsidiary**

On 13 May 2011 Bushveld Resources acquired a 55 per cent. equity interest in Amaraka. Amaraka had previously been owned by Pamish 63 (a wholly owned subsidiary of VMI) (30 per cent.) and AMM (70 per cent.).

Under the terms of this contract Bushveld became committed to financially support the exploration and development of prospecting right 438 up to a total of SAR 14 million (c. £1.3 million), in return for AMM transferring this prospecting right into Amaraka.

This transaction involved the issue of new shares to all three parties such that the resultant shareholdings were 55 per cent. (Bushveld), 31 per cent. (AMM) and 14 per cent. (Pamish 63: a company wholly-owned by VMI).

As at this date, the book value of the net assets of Amaraka were:

	£
Capitalised exploration costs	88,540
Other debtors	9
Loan from Bushveld Group	(88,540)
<b>Net Assets</b>	<u>9</u>
<b>Share capital</b>	<u>9</u>

## 16. Post Balance Sheet Events

### *Capitalisation of MWI loan*

Prior to Admission an agreement was entered into whereby the entire amount owed by the Bushveld Group to MWI would be converted into new ordinary shares of Bushveld Resources, as set out in Section 11.2(j)(ii) of Part VIII of this document.

### *Changes in parent understanding*

Subsequent to the capitalisation of the MWI loan (per above) MWI sold half of its shareholding in Bushveld Resources to Obtala Resources Ltd (“Obtala”), followed by both Obtala’s and MWI’s interests in Bushveld Resources being transferred to Bushveld Minerals Ltd, in return for shares in Bushveld Minerals Ltd (and under certain conditions an element of cash), further details of which are set out in Section 11.2(m) of Part VIII of this document.

### *Consulting agreement*

Prior to Admission a consulting agreement was signed by Bushveld Resources with VMI for the provision of consulting services at various rates depending on the specific service provided.

### *Additional investment in Amaraka*

Prior to Admission Pamish 63 transferred its 13.5 per cent. interest in Amaraka to Bushveld Resources for SAR 1,000,000 (c. £91,000). Prior to this, Pamish 63 had settled all its obligations arising from the original acquisition of its holding, and no further commitments in respect of Amaraka or 438 PR were therefore assumed by Bushveld Resources.

## SECTION I – UNAUDITED PRO FORMA STATEMENT OF NET ASSETS

### PRO FORMA STATEMENT OF NET ASSETS OF THE ENLARGED GROUP

The following pro forma statement of net assets of the Enlarged Group has been produced to illustrate the impact of the acquisition of Bushveld Resources and Greenhills Resources by the Company and the Proposed Placing as if they had occurred on 31 August 2011.

**The pro forma statement of net assets has been prepared for illustrative purposes only and, because of its nature, may not give a true picture of the financial position of the Enlarged Group.**

	<i>Net assets of the Company at 31 August 2011</i>	<i>Net assets of Bushveld Resources at 31 August 2011</i>	<i>Net assets of Greenhills at 31 August 2011</i>	<i>Consolidation adjustment</i>	<i>Purchase of investment in subsidiary</i>	<i>Reduction of loans and Subscription</i>	<i>Placing</i>	<i>Pro forma net assets of the Enlarged Group</i>
	£	£	£	£	£	£	£	£
	<i>Note 1</i>	<i>Note 2</i>	<i>Note 3</i>	<i>Note 4</i>	<i>Note 5</i>	<i>Note 6</i>	<i>Note 7</i>	
<b>Non-current assets</b>								
Property, plant and equipment	–	4,144	23,274	–	–	–	–	27,418
Intangible assets	–	1,791,422	823,878	–	90,909	–	–	2,706,209
<b>Current assets</b>								
Trade and other receivables	–	105,348	401,163	(401,163)	–	–	–	105,348
Cash and cash equivalents	–	5,513	210,580	–	(90,909)	195,750	4,860,000	5,180,934
<b>Total assets</b>	–	1,906,427	1,458,895	(401,163)	–	195,750	4,860,000	8,019,909
<b>Current liabilities</b>								
Borrowings	–	(1,467,236)	(2,065,733)	401,163	–	2,672,953	–	(458,853)
Trade and other payables	–	(86,563)	(1,625)	–	–	–	–	(88,188)
<b>Total liabilities</b>	–	(1,553,799)	(2,067,358)	401,163	–	2,672,953	–	(547,041)
<b>Net assets</b>	–	352,628	(608,463)	–	–	2,868,703	4,860,000	7,472,868

#### Notes to the pro forma statement of net assets

- 1 The Company was incorporated after the 31 August 2011 and prior to the acquisition of Bushveld Resources and Greenhills Resources remained a dormant company. Therefore zero net assets have been included for illustrative purposes.
- 2 For the purposes of the pro forma statement of net assets, the assets of Bushveld Resources have been included as per the unaudited interim financial information as at 31 August 2011, as set out in Section H of Part VIII of this Document.
- 3 For the purposes of the pro forma statement of net assets, the assets of Greenhills Resources have been included as per the unaudited interim financial information as at 31 August 2011, as set out in Section D of Part VIII of this Document.
- 4 The pro forma statement of net assets includes the elimination of intercompany balances between Greenhills and Bushveld Resources.
- 5 The pro forma statement of net assets includes the purchase of the 13.5 per cent. interest in Amaraka currently held by Pamish 63 under the terms of the acquisition agreement, as set out in Section 11.2 (q) of Part VIII of this document.
- 6 The pro forma statement of net assets includes:
  - the receipt of the remaining \$750,000 due to be paid by Obtala under the terms of the revised subscription agreement (as per Section 11.2 (a) (iii) of Part VIII of this document);
  - the payment of £273,000 (being 5 per cent. of the assumed gross placing proceeds of £5.5 million) to Obtala Resources under the terms of the Bushveld share for share exchange agreement as set out in Section 11.2 (m) of Part VIII of this document. This can be taken in either cash or shares at the discretion of Obtala Resources and so for the purposes of this illustration it has been shown to have been taken out as cash; and
  - the remainder of the loans due to both Obtala Resources and MWI being capitalised under terms of their respective agreements.
- 7 The pro forma statement of net assets assumes the net proceeds of the Placing, receivable by the Company, will amount to £4,860,000: being the gross proceeds of £5,460,000 less issue costs amounting to £600,000 inclusive of VAT.

## PART VIII

### ADDITIONAL INFORMATION

#### 1. RESPONSIBILITY

The Directors, whose full names are set out on page 362 of this Document, accept responsibility (both individually and collectively) for the information contained in this Document. To the best of the knowledge and belief of the Directors (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. THE COMPANY

- 2.1 The Company is incorporated and trades under the name Bushveld Minerals Limited.
- 2.2 The Company is domiciled in Guernsey and was incorporated and registered in Guernsey under the Companies Law on 5 January 2012 as a limited company with the name Bushveld Minerals Limited and registered number 54506.
- 2.3 The Company is a non-cellular company within the meaning of Section 2(1)(c) of the Companies Law.
- 2.4 The liability of the Company's members is limited to the amount (if any) unpaid on the Ordinary Shares held by them.
- 2.5 The Company is governed by and its securities were created under the laws of Guernsey.
- 2.6 The Company's registered office is located at 18-20 Le Pollet, St Peter Port, Guernsey, GY1 1WH and its telephone number is +44 1481 749 270 and both will remain so on Admission. The Company's principal operating address is Suite 3A, #5 Fricker Road, Illovo, 2116, Johannesburg, South Africa and its telephone number at this address is +27 11 268 6555.
- 2.7 The Company's website is [www.bushveldminerals.com](http://www.bushveldminerals.com) and will remain so on Admission.
- 2.8 The Company has no administrative, management or supervisory bodies other than the Board, the remuneration committee and the audit committee, all of whose members are Directors.
- 2.9 The Company's auditors are Baker Tilly UK Audit LLP of 25 Farringdon Street, London, EC4A 4AB, who are regulated for audit services by the institute of Chartered Accountants in England and Wales.
- 2.10 The accounting reference date of the Company is 28 February.

#### 3. THE GROUP

- 3.1 Immediately prior to Admission and the Placing, the issued share capital of the Company is owned and held as follows:

<i>Shareholder</i>	<i>Percentage Shareholding</i>
Obtala	51.1%
Oak Nominees Limited on behalf of VML	12.8%
Oak Nominees Limited on behalf of MWI	32.9%
VMI	3.2%

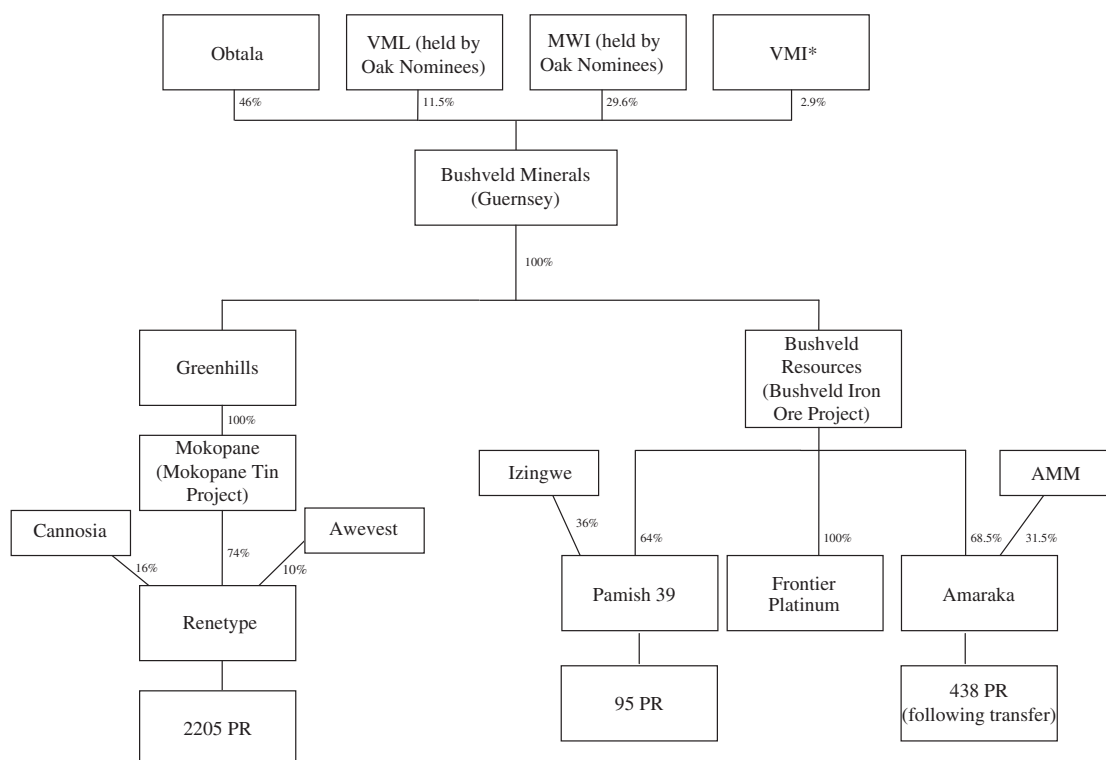
By a declaration of trust dated 5 January 2012, Oak Nominees hold VML's entire shareholding in the capital of the Company, being 32,640,000 Ordinary Shares as nominee of and trustee for VML.

By a declaration of trust dated 5 January 2012, Oak Nominees hold MWI's entire shareholding in the capital of the Company, being 83,979,450 Ordinary Shares as nominee of and trustee for MWI.

3.2 Prior to and following Admission, the Company is the holding company of two directly owned subsidiaries and five indirectly owned subsidiaries. Details of these subsidiaries are:

<i>Name</i>	<i>Country of Incorporation</i>	<i>Shareholder(s)</i>	<i>Percentage shareholding</i>
Greenhills Resources Limited	Guernsey	The Company	100%
Mokopane Tin Company (Proprietary) Limited	Republic of South Africa	Greenhills Resources Limited	100%
Renetype (Pty) Limited	Republic of South Africa	Mokopane Tin Company (Proprietary) Limited	74%
		Cannosia Trading 62 CC (a BEE Partner)	16%
		African Women Enterprise Investment (Proprietary) Limited (a BEE Partner)	10%
Bushveld Resources Limited	Guernsey	The Company	100%
Pamish Investments No.39 (Proprietary) Limited	Republic of South Africa	Bushveld Resources Limited	64%
		Izingwe Capital (Proprietary) Limited (a BEE Partner)	36%
Frontier Platinum Resources (Proprietary) Limited	Republic of South Africa	Bushveld Resources Limited	100%
Amaraka Investments No.85 (Proprietary) Limited	Republic of South Africa	Bushveld Resources Limited	68.5%
		Afro Multi Minerals (Proprietary) Limited (a BEE Partner)	31.5%

3.3 The structure of the Group following Admission is set out in the following diagram:



\* VMI is controlled by Fortune Mojapelo and Anthony Viljoen

#### 4. SHARE CAPITAL

4.1 The Company was incorporated with an unlimited share capital. 100 fully paid shares of par value £1.00 each were issued to Oak Nominees (held on behalf of VML (67 shares) and MWI (33 shares)), as the subscriber to the Company's memorandum of incorporation. Shares may be issued with a par value or with no par value.

4.2 The Company's issued ordinary share capital as at the date of this Document and as it will be immediately following Admission, is as follows:

	<i>At the date of this document</i>		<i>Immediately following Admission</i>	
	<i>Number</i>	<i>Nominal Value (£)</i>	<i>Number</i>	<i>Nominal Value (£)</i>
Fully paid Ordinary Shares in issue	255,304,110	2,553,041.10	283,969,110	2,839,691.10

4.3 The following changes in the issued share capital of the Company have taken place between the Company's incorporation and the date of this Document:

- on 12 March 2012 Oak Nominees transferred 50 of the ordinary shares of par value £1.00 each held on behalf of VML into Obtala's name;
- by written resolution passed on 12 March 2012, the Company subdivided each of its shares of par value £1.00 each into 100 ordinary shares of par value one pence each;

4.4 On 12 March 2012, resolutions of the Company were passed for the following purposes:

- in accordance with Article 8 of the Articles, to authorise the Directors generally and unconditionally to exercise all the powers of the Company to allot and make offers to allot Ordinary Shares up to an aggregate nominal amount of £3,786,254.70 provided that such authority expires at the conclusion of the first annual general meeting of the Company or on 14 March 2013 (whichever is earlier) save that the Company may before such expiry make an

offer or enter into an agreement which would or might require relevant securities to be allotted after such expiry and the Directors may allot relevant securities in pursuance of such offer or agreement as the authority conferred thereby had not expired;

- (b) in accordance with Article 9 of the Articles, to authorise the Directors generally and unconditionally to allot Ordinary Shares for cash pursuant to the Article 8 authority referred to in paragraph 4.4(a) above as if Article 9.2 of the Articles did not apply to any such allotment provided that this power should be limited to allotments on a *pro rata* basis and the allotment shall not exceed Ordinary Shares up to an aggregate nominal amount of £283,969.11;
- (c) the Company be generally and unconditionally authorised for the purposes of Articles 50.3 of the Articles to make on market acquisitions (as defined in Article 50.5 of the Articles) of Ordinary Shares on such terms and in such manner as the Directors determine provided that:
  - (i) the maximum aggregate number of Ordinary Shares which may be purchased is 28,396,911 Ordinary Shares;
  - (ii) the minimum price (excluding expenses) which may be paid for each Ordinary Share is £0.01;
  - (iii) the maximum price (excluding expenses) which may be paid for any Ordinary Share does not exceed 105 per cent of the average closing price of such shares for the 5 business days of AIM prior to the date of purchase; and
  - (iv) this authority shall expire at the conclusion of the first annual general meeting of the Company or on 14 March 2013 (whichever is earlier), unless such authority is renewed prior to that time (except in relation to the purchase of Ordinary Shares the contract for which was concluded before the expiry of such authority, in which case such purchase may be concluded wholly or partly after such expiry); and
- (d) the Company adopt the Articles.

4.5 The par value of each Ordinary Share is one pence.

4.6 The Company has not issued shares that are not fully paid up.

4.7 Save as disclosed in this Part VIII:

- (a) no share or loan capital of the Company has been issued or is proposed to be issued; and
- (b) no person has any preferential or subscription rights for any share capital of the Company.

4.8 The Ordinary Shares have no redemption or conversion provisions.

4.9 Save as described in this Document, the Company does not have in issue any convertible securities, exchangeable securities or securities with warrants.

4.10 There are no shares in the capital of the Company that do not represent capital and no shares in the capital of the Company are held by or on behalf of the Company itself or by its subsidiaries.

4.11 Save as disclosed in paragraphs 11.1 and 11.2 of this Part VIII and any obligation to allot the Placing Shares pursuant to the Placing, there are no acquisition rights and/or obligations in existence pursuant to which the Company would be required to issue further shares.

4.12 Save as disclosed in paragraph 11.1 of this Part VIII, no capital of the Company or any member of the Group is under option or agreed conditionally or unconditionally to be put under option.

4.13 The holders of Existing Ordinary Shares will be diluted by the issue of the Placing Shares. The effect of the issue of the Placing Shares will be that holders of Existing Ordinary Shares at the date of this Document will own approximately 90 per cent of the Enlarged Share Capital immediately following Admission.



- 4.14 A Shareholder is required pursuant to Article 90 to notify the Company if, as a result of an acquisition or disposal of shares or financial instruments, the Shareholder's percentage of voting rights of the Company reaches, exceeds or falls below, 3 per cent. of the nominal value of the Company's share capital or any 1 per cent. threshold above that.

## **5. SHARE OPTIONS**

Following Admission the Company intends to enter into share options agreements granting options to several people, including employees, management and Directors, subject to the terms that:

- (a) the total number of options shall not exceed 10 per cent. of the Enlarged Share Capital;
- (b) the options are exercisable at an option price of 30 pence per Ordinary Share;
- (c) half of the number of Ordinary Shares comprised in each option will vest after 2 years from Admission and the remaining half of the Ordinary Shares comprised in the option will vest after 3 years following Admission;
- (d) the options will lapse 5 years following Admission (unless exercised earlier);
- (e) if the option is granted to an employee of the Group and that employee leaves their employment, the option will lapse immediately if that employee is dismissed for cause, and after 6 months of the termination of employment otherwise.

All such options will be granted at the discretion of the Board and may include options granted to employees of the Group in the ordinary course of business as part of remuneration arrangements with employees.

## **6. MEMORANDUM OF INCORPORATION OF THE COMPANY**

Pursuant to section 113 of the Companies Law as amended and the memorandum of incorporation of the Company, the Company has unlimited objects.

## **7. ARTICLES OF INCORPORATION OF THE COMPANY**

The following summary, which does not purport to be complete or exhaustive, contains a description of the significant rights attached to the Ordinary Shares as set out in the Articles adopted by a written resolution of the Company passed on 15 March 2012.

### **7.1 *Alteration of share capital***

The Company may by ordinary resolution consolidate and divide all or any of its share capital into shares of larger amount than its existing shares, subdivide all or any of its shares into shares of smaller amount than is fixed by the memorandum, cancel any shares which, at the date of the passing of the resolution, have not been taken, or agreed to be taken, convert all or any of its shares the nominal amount of which is expressed in a particular currency into shares of a nominal amount of a different currency and where its share capital is expressed in a particular currency or former currency, denominate or redenominate it, whether by expressing its amount in units or sub-divisions of that currency or former currency, or otherwise.

### **7.2 *Acquisition of own shares***

Subject to the Companies Law and to any rights attached to existing shares, the Company may acquire all or any of its own shares of any class. Any on-market acquisition needs to be authorised by an ordinary resolution of the Company. An off-market acquisition can only be made in pursuance of a contract authorised in advance by a special resolution of the Company. In accordance with the Companies Law, the Company must be able to pass the solvency test after the acquisition is made before effecting any such acquisition.

### 7.3 *Share rights*

Subject to the Companies Law, and subject to and without prejudice to any rights attached to any existing shares, any share in the Company may be issued with or have attached to it such rights and restrictions as the Company may by ordinary resolution decide, or if no such resolution has been passed or so far as the resolution does not make any specific provision, as the Board may decide.

Subject to the Companies Law and to any rights attached to any existing shares, the Company may issue redeemable shares or convert existing shares into redeemable shares which are, or at the option of the Company or the holder are liable to be, redeemed. The terms and conditions of redemption of any shares so issued or converted must be set out in the Articles.

### 7.4 *Allotment of securities and pre-emption rights*

Subject to the provisions of the Companies Law, the Articles and any resolution passed by the Company conferring authority on the Directors to allot shares, and without prejudice to any rights attached to existing shares, all unissued shares are at the disposal of the Board which may offer, allot, grant options over or otherwise deal with or dispose of them to persons at such time and for such consideration and on such terms as the Board may decide. The authority of the Board to allot unissued shares is subject to the passing of an ordinary resolution which will determine the maximum number of shares that the Board is authorised to allot during the allotment period specified in that ordinary resolution (which, in practice, will be the period between the passing of such an ordinary resolution and the following annual general meeting of the Company).

The Companies Law does not provide any statutory pre-emption rights. The Articles therefore provide that shares issued wholly for cash by the Company must first be offered to existing shareholders, unless a special resolution permits otherwise, in proportion to their respective holdings of shares (i.e. the provisions relating to statutory pre-emption rights under the 2006 Act have been broadly replicated in the Articles).

### 7.5 *Disclosure of interests in shares and shareholder notification*

The Company may by notice in writing require any person whom the Company knows or has reasonable cause to believe to be interested in any class of shares of the Company to confirm that fact or indicate whether or not it is the case and to give such further information as may be required. Pursuant to the Articles, the Company Shareholders are obliged to comply with the notification and disclosure requirements in Chapter 3 of the Disclosure and Transparency Rules as if the Company were a UK domestic company. The Disclosure and Transparency Rules can be accessed and downloaded from the FSA website at <http://www.fsahandbook.info/FSA/html/handbook/DTR/5> <http://www.fsahandbook.info/FSA/html/handbook/DTR/5>.

### 7.6 *Share certificates*

Every person (except a person to whom the Company is not by law required to issue a certificate) whose name is entered on the Company register of members as the holder of shares in certificated form is entitled, without payment, to one certificate in respect of all shares of any class held by him. In the case of joint holders, delivery of a certificate to one of the joint holders shall be sufficient delivery to all.

### 7.7 *Forfeiture and lien*

Subject to the Companies Law, the Board may from time to time make calls upon the members of the Company in respect of any moneys unpaid on their shares, subject to the terms of issue of such shares. Each member shall (subject to being given at least 14 days' notice in writing specifying where and when payment is to be made) pay to the Company the specified amount called on his shares. If any call or instalment of a call remains unpaid on or after the due date for payment, the Board may at any time thereafter serve a notice in writing on the holder requiring payment of such unpaid amount together with any interest accrued thereon and any expense incurred by the Company by reason of such non-payment. Interest shall accrue on any sums which are unpaid from the day appointed for

payment thereof to the time of actual payment at such rate as the Board may decide (although this shall not exceed 15 per cent.). The notice shall state that in the event of non-payment in accordance with the notice, the shares on which the call has been made will be liable to be forfeited.

The Company shall have a first and paramount lien on every share (not being a fully-paid share) for all amounts payable to the Company (whether presently payable or not) in respect of such share. The Board may waive any lien which has arisen. The Company may sell, in such manner as the Board may decide, any share on which the Company has a lien if any sum in respect of which the lien exists is presently payable and is not paid within 14 days after a notice demanding payment and stating that the share may be sold for non-compliance with such notice shall have been given to the holder of the share.

#### 7.8 *Variation of rights*

Subject to the provisions of the Companies Law, and to any rights attached to existing shares, all or any of the rights attached to any class of shares may be varied with the consent in writing of the holders of at least 75 per cent. in value of the issued shares of the class or group or the sanction of a special resolution passed at a separate general meeting of the class or group at which the provisions of the Articles in relation to the majority required for a special resolution are fulfilled in respect of the relevant class(es) of shareholders (excluding holders of treasury shares). A quorum for the separate class meeting is two persons (in person or by proxy) holding one-third of the voting rights of the shares of that class or group.

#### 7.9 *Transfer of shares*

- (a) Any member may transfer all or any of his certificated shares by an instrument of transfer in writing in any usual or in any other form which the Board may approve. An instrument of transfer shall be signed by or on behalf of the transferor and by or on behalf of the transferee.
- (b) Any member may transfer all or any of his shares which are in uncertificated form, subject to the Guernsey CREST Requirements, by means of a relevant system.
- (c) The Board may, subject to applicable law, refuse to register any transfer of shares in certificated form, which are not fully-paid shares.
- (d) The Board may also refuse to register the transfer of a share in certificated form unless the instrument of transfer:
  - (i) is left at the registered office of the Company (or at another place as the Board may determine from time to time which includes the Company's registrars) accompanied by the certificate for the share to which it relates and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer;
  - (ii) is in respect of one class of share only; and
  - (iii) in the case of a transfer to joint holders, is in favour of not more than four persons.
- (e) No fee shall be payable to the Company in respect of the registration of any transfer, probate, letters of administration, certificate of marriage or death, power of attorney, instruction or other document relating to or affecting the title to any shares.

#### 7.10 *General meetings*

- (a) The Board shall convene and the Company shall hold general meetings and annual general meetings in accordance with the Companies Law. General meetings (other than the annual general meeting) are called general meetings.
- (b) The Board may convene general meetings whenever it thinks fit. The annual general meeting will be held once every year in Guernsey (or in such other place as the Directors may decide).

- (c) All annual general meetings of the Company shall be called on not less than 21 clear days' written notice and in the case of all other general meetings at least 14 clear days' notice convening the meeting must be given. In the case of a meeting which is adjourned for 30 days or more notice of the meeting will be given as in the case of the original meeting. Subject to the provisions of the Companies Law, the provisions of the Articles and to any restrictions imposed on any shares, the notice shall be sent to all the members, to each of the Directors and to the auditors.
- (d) The notice shall specify the place, day and time of the meeting, the agenda and the general nature of the business to be transacted at the meeting.
- (e) In the case of an annual general meeting, the notice shall specify the meeting as such.
- (f) In the case of a general meeting, the notice shall specify the agenda for the meeting and indicate any proposed business of the meeting.
- (g) A member may nominate a person on whose behalf he holds shares to enjoy rights to receive a copy of all communications that the Company sends to its members.
- (h) All meetings of the Company Shareholders shall be quorate where two members are present in person or by proxy and entitled to vote at the meeting. If the meeting is not quorate, the meeting may be adjourned. At any adjourned meeting the quorum shall be those members present in person or by proxy.
- (i) Resolutions shall be decided on a show of hands unless a poll is demanded by:
  - (i) the chairman of the meeting;
  - (ii) at least five members present in person or by proxy and entitled to vote on the resolution; or
  - (iii) a member or members present in person or by proxy and representing not less than 10 per cent. of the total voting rights of all the members having the right to vote on the resolution.
- (j) A poll shall be taken in such manner as the chairman of the meeting shall direct.
- (k) A Director shall, notwithstanding that he is not a member, be entitled to attend and speak at any general meeting and at any separate meeting of the holders of any class of shares in the capital of the Company.

#### 7.11 *Voting rights and restrictions*

Subject to any special terms as to voting attached to any shares and to the Articles, on a show of hands every member who is present in person or by proxy shall have one vote and on a poll every member who is present in person or by proxy shall have one vote for every share of which he is the holder. On a poll, a member who is present in person or by proxy and who is entitled to more than one vote need not use all his votes or cast all the votes he uses in the same way. A member may appoint more than one proxy.

No member shall be entitled to vote at any general meeting unless all moneys presently payable by him in respect of shares in the Company have been paid. A Shareholder who has been duly served with a disclosure notice, or who has not provided to the Company information required to be notified under the Disclosure and Transparency Rules, and who has not complied with such notice, or who has not supplied the Company with the information required, either within a period of 14 days or the relevant period stipulated by the Disclosure and Transparency Rules respectively, shall not be entitled to attend or vote personally or by proxy at shareholders' meetings.

## 7.12 *Corporate representatives*

Any body corporate which is a member of the Company may by board resolution authorise such person as it thinks fit to act as its representative at any general meeting and may exercise the same powers on behalf of such body corporate as the body corporate could exercise if it were an individual member of the Company.

## 7.13 *Directors*

### (a) *Appointment of directors*

Unless otherwise determined by ordinary resolution, the number of the Directors shall be not less than two and no more than eight. At no time after Admission, shall a majority of the Directors be resident in the United Kingdom. The Directors may be appointed by ordinary resolution or by the Board, provided that at any time after Admission a majority of the Directors are not resident in the United Kingdom. Subject to the provisions on rotation of the Directors, a Director appointed by the Board holds office only until the next following annual general meeting and if not reappointed at such annual general meeting, shall vacate office at its conclusion.

### (b) *No share qualification*

A Director shall not be required to hold any shares in the capital of the Company by way of qualification.

### (c) *Retirement of Directors by rotation*

At every annual general meeting any the Director who was appointed by the board since the last annual general meeting and one-third of the other the Directors (or if their number is not a multiple of three, then the number nearest to but not less than one-third) shall retire from office. Such directors are eligible for re-election at that meeting.

### (d) *Remuneration of Directors*

The aggregate fees of all of the Directors for their services (excluding any amounts payable as salary) shall not exceed £500,000 per annum, or such higher amount as may be determined by ordinary resolution (excluding amounts payable under any other provision of the Articles). Any Director who performs services, which in the opinion of the Board, goes beyond the ordinary duties of a director, may be paid such extra remuneration by way of salary, percentage of profits or otherwise as the Board may, in its discretion, determine.

In addition to any remuneration to which the Directors are entitled under the Articles, they may be paid all expenses as they may properly incur in attending and returning from meetings of the Directors or of any committee of the Directors or shareholders meetings or otherwise in connection with the business of the Company.

The Board or any other committee may exercise all the powers of the Company to provide benefits, whether by payment of gratuities or pensions or by insurance or in any other manner for any Director or former the Directors or relations or dependants of, or persons connected to, any Director or former Director.

### (e) *Permitted interests of Directors*

Subject to the provisions of the Companies Law and provided that where a Director, to his knowledge, is in any way directly or indirectly interested in a contract, transaction or arrangement, he has immediately disclosed to the Board the nature and extent of his interest, a Director notwithstanding his office:

- (i) may be a party to, or otherwise interested in, any transaction or arrangement with the Company or in which the Company is otherwise (directly or indirectly) interested;

- (ii) may act by himself or his firm in a professional capacity for the Company (otherwise than as auditor) and he or his firm shall be entitled to remuneration for professional services as if he were not a Director; and
- (iii) may be a Director or other officer of, or employed by, or a party to a transaction or arrangement with, or otherwise interested in, any body corporate in which the Company is otherwise (directly or indirectly) interested.

A Director may hold any other office or place of profit with the Company (except that of auditor) in conjunction with his office of director and may be paid such extra remuneration for so doing as the Board may decide, either in addition to or in lieu of any remuneration provided for by other articles.

Any Director who has an interest in a transaction submitted for approval to the Board, unless it relates to the current operations entered into under normal conditions, which conflicts with the interests of the Company, shall, in accordance with the Companies Law and the Articles, be obliged to advise the Board of that interest and to cause a record of his statement to be included in the minutes of the meeting. He may not take part in deliberations in relation to the approval of this transaction. At the next following general meeting, before any other resolution is put to the vote, a special report shall be made on any transactions in which any of the Directors have had an interest which conflicts with that of the Company.

(f) *Restrictions on voting*

Except as otherwise provided in the Articles, a Director shall not count in the quorum in relation to or vote or deliberate on any resolution of the Board concerning a contract, transaction or arrangement in which he has an interest which (taken together with any interests of any person connected with him) is to his knowledge a material interest, but these prohibitions shall not apply to:

- (i) a contract or arrangement for giving to the Director security or a guarantee or indemnity in respect of money lent by him or obligations undertaken by him or by any other person at the request of or for the benefit of the Company or any of its subsidiaries;
- (ii) a contract or arrangement for giving to the Director security or a guarantee 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 part under a guarantee or indemnity or by the giving of security;
- (iii) where the Company or any of its subsidiary undertakings is offering securities in which offer the Director is, or may be, entitled to participate as a holder of securities or in the underwriting or sub-underwriting of which the director is to participate;
- (iv) relating to another company in which he and any persons connected to him do not to his knowledge hold an interest in shares representing one per cent or more of any class of the equity share capital or of the voting rights in that company;
- (v) relating to a pension, superannuation or similar scheme or retirement, death or disability benefits scheme or employees' share scheme which does not award him any privilege or benefit not awarded to the employees to whom the scheme relates;
- (vi) concerning insurance which the Company proposes to maintain or purchase for the benefit of the Directors or the benefit of persons including the Directors.

(g) *Board meetings*

The Board meetings shall not take place in the United Kingdom. The Directors may participate in a Board meeting by conference telephone or other communication equipment provided that such meeting is validly convened only if a majority of the directors participating are located

outside the UK. To be valid and effectual, written resolutions of the Board must be signed by all the Directors. No such resolution shall be valid if a majority of the Directors sign the resolution in the UK. A Director may appoint another Director as a proxy to attend and vote at a Board meeting on their behalf.

(h) *Borrowing powers*

The Board may exercise all the powers of the Company to borrow money and to mortgage or charge all or any part of the undertaking, property, assets (present and future) and uncalled capital of the Company, and, subject to the Companies Law, 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.

The Directors must restrict the borrowings of the Company so that the aggregate amount outstanding in respect of borrowings by the Group shall not, without an ordinary resolution of the Company, exceed the greater of £10,000,000 or an amount equal to four times the adjusted capital and reserves of the Company. The adjusted capital and reserves of the Company equals the paid up issued share capital and the amount standing to the credit of the reserves of the company, less any debit balance on retained earnings and other variations in the amount of the paid up share capital and reserves since the date of the audited balance sheet which is being referred to for the purposes of this calculation.

(i) *Indemnity of officers*

Subject to the provisions of the Companies Law any director of the Company or any of its subsidiaries may be indemnified out of the assets of the Company against any liability incurred by him by reason of having been a director of the Company or any of its subsidiaries.

**7.14 Register of members**

The Directors shall keep and maintain a register of members in Guernsey and may rely upon the information provided by the CREST operator for the purposes of keeping this register up to date.

A copy of the register shall be made available in electronic form to any member who requests to examine it at the head office of the Company in Guernsey. No copy of the register kept or maintained outside Guernsey shall constitute the register of members of the Company.

**7.15 Dividends and other distributions**

- (a) The Company may by ordinary resolution declare dividends.
- (b) No dividend shall be payable except out of the profits of the Company and shall not exceed any amount recommended by the Directors. The Directors may pay such interim dividends as appear to them to be justified by the profits of the Company. No dividend can be paid unless the Company is able to satisfy the solvency test (as defined in the Companies Law) after the payment of the dividend and the Directors must give a certificate to this effect.
- (c) If the Board acts in good faith, it shall not incur any liability to the holders of any shares for any loss they may suffer by the payment, on any other class of shares having rights ranking after or *pari passu* with those shares, of any such fixed or interim dividend.
- (d) Except as otherwise provided by the rights attaching to or terms of issue of any shares, or the terms of issue thereof, all dividends shall be apportioned and paid *pro rata* to shareholders according to the amounts paid on the shares during any portion or portions of the period in respect of which the dividend is paid.
- (e) No dividend or other moneys payable in respect of a share shall bear interest against the Company.

- (f) The Directors may deduct from any dividend or other moneys payable to a holder of shares on or in respect of such shares all sums of money (if any) presently payable by the holder to the Company on account of calls or otherwise in relation to such shares.
- (g) Any dividend unclaimed after a period of twelve years from the date on which such dividend was declared or became due for payment shall be forfeited and revert to the Company.
- (h) Subject to the Companies Law, the Directors may, if authorised by an ordinary resolution of the Company, offer any holder of shares (excluding treasury shares) the right to elect to receive shares by way of scrip dividend instead of cash.
- (i) The Directors may pay distributions to members in accordance with the Companies Law.

#### 7.16 *Winding up*

Except as provided by the rights and restrictions attached to any class of shares, the holders of shares will be entitled to participate in any surplus assets in a winding up in proportion to their shareholdings. Any liquidator appointed may, with the sanction of a special resolution and any other sanction required by the Companies Law, divide among its members in kind the whole or any part of the assets of the Company, setting such values as it deems fair upon any property to be so divided and determining how the division shall be carried out between different classes of members.

#### 7.17 *Disclosure of beneficial ownership*

If at any time any member, or any other person (as appropriate) has been served with a disclosure notice from the Company and has not complied with such notice or supplied the information required to the Company within a period of 14 days following service of the disclosure notice, then the Board may, in its absolute discretion by notice in writing (a “restriction notice”) to such member direct that:

- (a) in respect of the shares in relation to which the restriction notice relates which shall include any share issued after the date of the notice in respect of such share) the member shall not, with effect from service of the restriction notice be entitled to vote either personally or by proxy at a shareholders’ meeting or to exercise any other right conferred by membership in relation to shareholder meetings; and
- (b) in the case of a restriction notice served on a person who holds shares which represent 0.25 per cent. or more of the issued shares of the class in question, the restriction notice may additionally direct that in respect of those shares:
  - (i) no payment shall be made by way of dividend and no share shall be allotted in lieu of payment of a dividend; and
  - (ii) the Board may decline to register a transfer of any of the shares (which are in Certificated form) unless the transfer is pursuant to a *bona fide* sale of the shares to a party unconnected with the holder or any other person appearing to be interested in such shares.

Any restriction notice shall cease to have effect in relation to any shares transferred by such member in accordance with the provisions described in paragraph 7.17(b)(ii) above.

#### 7.18 *Schemes of arrangement*

The Company may implement a scheme of arrangement in accordance with the relevant provisions of the Companies Law provided that it has obtained (i) approval by a majority in number representing at least 75 per cent. (in value) of the creditors or members (or any class of them) (as appropriate) present and voting either in person or by proxy who are entitled to vote at a meeting convened by the Guernsey court; and (ii) approval of the Guernsey court. In the case of a scheme of arrangement between the Company and its members (or any class of them), at the court meeting the members (or any class of them) would be asked to approve the scheme of arrangement.



Once approved by the members in the court meeting and the Guernsey court, the scheme of arrangement would be binding on all members or creditors, whether or not they voted in favour of the scheme of arrangement.

#### 7.19 *Takeover offers*

Under the Companies Law if a takeover offer is made for the Company and the offeror obtains acceptances of at least 90 per cent. in value of the shares (or class of shares) it is offering to buy in the Company, subject to the provisions of the Companies Law, it can compulsorily acquire the shares (or class of shares) of the non-accepting members on the terms of the offer by notice given to the non-accepting members in accordance with the Companies Law. In such circumstances, payment for the shares of the non-accepting members shall be made, and the shares of the non-accepting members shall be transferred to the bidder, in accordance with the provisions of the Companies Law. A holder of any shares who receives a notice of compulsory acquisition may (within one month from the date of the notice) apply to the Guernsey court for an order that the notice be cancelled.

#### 7.20 *Takeover Code mandatory offer*

Whilst the Company is not subject to the Takeover Code, the Articles provide that where any person is interested, whether as a result of a series of transactions over a period of time or not, in shares which (taken together with shares held or acquired by persons acting in concert with him) represent 30 per cent. or more of all the shares for the time being in issue, the Directors may serve upon that person (and each person acting in concert with him) a notice requiring him (or them, appropriate) to make an offer to the holders of every class of share capital of the Company (or securities convertible into share capital of the Company) to purchase all such shares for cash.

Such offer must be in cash or contain a cash alternative offer at not less than the highest price paid by the offeror (or any person acting in concert with him) for the shares or convertible securities within the preceding 12 months.

The offer must be conditional only on the offeror having received acceptances which, together with shares in the Company acquired or agreed to be acquired before or during the offer, will result in the offeror (and any person acting in concert with him) holding shares in the Company which carry more than 50 per cent. of the voting rights in the Company.

### 8. DIRECTORS' INTERESTS

8.1 The interests of the Directors (all of which are beneficial), their immediate family members and any Connected Person in the share capital of the Company, excluding any options in respect of such capital (details of which are set out at paragraph 8.2 of this Part VIII), the existence of which is known to or could with reasonable diligence be ascertained by that Director, whether or not held through another party, as at the date of this Document, and as they are expected to be immediately following Admission, are as follows:

<i>Director</i>	<i>At the date of this Document</i>		<i>Immediately following Admission</i>	
	<i>Number of Ordinary Shares</i>	<i>Percentage of Ordinary Shares</i>	<i>Number of Ordinary Shares</i>	<i>Percentage of Enlarged Issued Share Capital</i>
Ian Watson	Nil	Nil	Nil	Nil
Fortune Mojapelo*	8,160,000	3.2	8,160,000	2.9
Anthony Viljoen*	8,160,000	3.2	8,160,000	2.9
Geoff Sproule	Nil	Nil	Nil	Nil
Jeremy Friedlander	Nil	Nil	Nil	Nil
<b>Total</b>	<u>8,160,000</u>	<u>3.2</u>	<u>8,160,000</u>	<u>2.9</u>

\*Fortune Mojapelo and Anthony Viljoen are interested in Ordinary Shares held by VMI as they each beneficially own 50 per cent. of VMI

- 8.2 At the date of this Document no options over Ordinary Shares have been granted to the Directors.
- 8.3 Save as described in this paragraph 8, none of the Directors or any member of their respective families, nor any Connected Person has any interest, beneficial or non-beneficial, in the share capital of the Company.
- 8.4 The directorships or partnerships of the Directors currently held and held over the five years' preceding the date of this Document (other than the Company) are as follows:

<i>Director</i>	<i>Age</i>	<i>Current Directorships and Partnerships</i>	<i>Past Directorships and Partnerships (in the previous 5 years)</i>
Ian Watson	69	Galaxy Gold Mining Limited Galaxy Gold Reefs (Pty) Ltd Galaxy Gold Group Services (PTY) Ltd Hillson Drilling Shaft Sinkers Holdings (PTY) Ltd Broadway Homeowners Association Bushveld Resources Greenhills Resources Bushveld Minerals	Platmin Ltd Boynton Investments (Pty) Ltd Platmin Resources Limited Boynton Platinum (East) (Proprietary) Limited Boynton Platinum (Proprietary) Limited Born Free Investments 144 (Proprietary) Limited Born Free Investments 330 (Proprietary) Limited Bubesi Investments 38 (Proprietary) Limited Crowned Cormorant Investments 16 (Proprietary) Limited Crowned Cormorant Investments 13 (Proprietary) Limited Defacto Investments 275 13 (Proprietary) Limited Dream World Investments 226 (Proprietary) Limited Dream World Investments 249 (Proprietary) Limited Eagle Creek Investments 55 (Proprietary) Limited Eagle Creek Investments 86 (Proprietary) Limited Isandlwana Mining and Exploration (Proprietary) Limited Keenan Investments (Proprietary) Limited Mahube Mining (Proprietary) Limited New Line Investments 77 (Proprietary) Limited Pilanesberg Platinum Mines (Proprietary) Limited Private Preview Investments 39 (Proprietary) Limited

<i>Director</i>	<i>Age</i>	<i>Current Directorships and Partnerships</i>	<i>Past Directorships and Partnerships (in the previous 5 years)</i>
Ian Watson (continued)			Sengani Family Mining and Exploration Holding (Proprietary) Limited Setseka Mining (Proprietary) Limited Tafida Investments (Proprietary) Limited Tameng Mining and Exploration (Proprietary) Limited Taung Platinum Exploration (Proprietary) Limited Ubkhosi Mining and Exploration (Proprietary) Limited Versatex Trading 346 (Proprietary) Limited 5 Brothers Mining (Proprietary) Limited Intrax Investments 255 (Proprietary) Limited Midnight Masquerade Proprieties 170 (Proprietary) Limited 8 Mile Investment 144 (Proprietary) Limited Taung Minerals (Proprietary) Limited West Dune Properties 115 (Proprietary) Limited
Fortune Mojapelo	35	Pamish 63 Something More Trading Amaraka Investments No. 65 Amaraka Investments No. 69 Amaraka Investments No. 70 Amaraka Investments No. 72 Amaraka Investments No. 73 Amaraka Investments No. 83 Amaraka Investments No. 85 Canton Trading 193 Centebale Capital Copper Mountain Trading 10 Emmanuel Sports Foundation Frontier Platinum Resources Gulube Marketing Kopela Kunana Mining and Processing Mokopane Moputso Investments No. 71 Moputso Investments No. 72 Moputso Investments No. 75 New Order Investments 52 Newshelf 1135 Oxyros 276 Pamish Investments No. 39	NIL

<i>Director</i>	<i>Age</i>	<i>Current Directorships and Partnerships</i>	<i>Past Directorships and Partnerships (in the previous 5 years)</i>
Fortune Mojapelo (continued)		Pamish Investments No. 49 Pamish Investments No. 59 Pamish Investments No. 61 Pamish Investments No. 64 Pamish Investments No. 65 Pamish Investments No. 69 Pamish Investments No. 70 Pamish Investments No. 71 Renetype VMI Woman Unlimited Ministries Bushveld Resources Greenhills	
Anthony Viljoen	35	Pamish Investments No. 64 Lemur Resources Centebale Capital Something More Trading VMI Amaraka Investments No. 65 Amaraka Investments No. 69 Amaraka Investments No. 70 Amaraka Investments No. 72 Amaraka Investments No. 73 Amaraka Investments No. 83 Amaraka Investments No. 85 Bushveld Resources Greenhills Canton Trading 193 Copper Mountain Trading 10 Frontier Platinum Resources Green Valley Farm Portion 7 Holt Hil 494 Kopela Kunana Mining and Processing Mokopane Moputso Investments No. 71 Moputso Investments No. 72 Moputso Investments No. 75 Newshelf 1135 Pamish Investments No. 39 Pamish Investments No. 49 Pamish Investments No. 59 Pamish Investments No. 61 Pamish Investments No. 63 Pamish Investments No. 65 Pamish Investments No. 69 Pamish Investments No. 70 Pamish Investments No. 71 Renetype Umshayeli Logistics Africa Gulube Marketing	NIL

<i>Director</i>	<i>Age</i>	<i>Current Directorships and Partnerships</i>	<i>Past Directorships and Partnerships (in the previous 5 years)</i>
Geoff Sproule	69	JH Isaacs Group Holdings Limited Downton Development Corporation Markruis Investments (Proprietary) Limited Northwold Extension 38 (Proprietary) Limited JH Isaacs Broker (Proprietary) Limited Market Street Nominees 14 (Proprietary) Limited Bushveld Resources Greenhills Mokopane Renetype	NIL
Jeremy Friedlander	57	Wiltens Music Hall Bushveld Resources Greenhills	Full Metal Services LLP Khaya Properties Limited International Medical Devices PLC Onslow Limited Onslow Resources PLC Response Medical Equipment Limited RME Holdings Limited Resort Development Services Limited Greenwich Financial Limited Trees Direct Ltd Palmyra Resources PLC

Ian Watson is a former director of Black Mountain Mineral Development Company (Pty) Ltd, which was wound up by way of a members' voluntary liquidation in November 2001. Mr Watson is a former director of New Wits Ltd, which was wound up by way of a members' voluntary liquidation in July 2001. Mr Watson is a former director of Tsumeb Corporation Ltd which was placed into provisional liquidation in March 1988. In March 2000 a scheme of compromise was entered into and the total estimated shortfall to creditors was SAR 50 million.

- 8.5 Save as stated in paragraph 8.4 of this Part VIII, none of the Directors is or has been a director or partner in companies or partnerships at any time in the period of five years immediately preceding the date of this Document.
- 8.6 Save as disclosed in this paragraph 8, none of the Directors has:
- (a) any unspent convictions in relation to indictable offences;
  - (b) any bankruptcy order made against him or entered into any individual voluntary arrangements;
  - (c) been a director of a company which has been placed in receivership, compulsory liquidation, creditors' voluntary liquidation, administration, been subject to a company 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; or
- (f) been publicly criticised by any statutory or regulatory authority, including recognised professional bodies, or 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.

8.7 There are no outstanding loans granted by the Company to any of the Directors or granted by any Director to the Company nor has any guarantee been provided by the Company for their benefit.

8.8 No Director nor any member of a Director's family (which, in relation to this paragraph 8 means a spouse, any child where such child is under the age of 18 years, any trust in which such individuals are trustees or beneficiaries and any company over which they have control of more than 20 per cent. of its voting or equity rights in general meeting, but excluding any employee share or pension scheme where such individuals are beneficiaries rather than trustees) holds or has held any financial product whose value in whole or in part is determined directly or indirectly by reference to the price of Ordinary Shares.

8.9 So far as is known to the Company, the persons other than the Directors who directly or indirectly hold three per cent. or more of the voting rights in respect of the Ordinary Shares in issue, as at the date of this Document and as they are expected to be immediately following Admission, are as follows:

<i>Name</i>	<i>At the date of this Document</i>		<i>Immediately following Admission</i>	
	<i>Number of Ordinary Shares</i>	<i>Percentage of Ordinary Shares (%)</i>	<i>Number of Ordinary Shares</i>	<i>Percentage of Enlarged Issued Share Capital (%)</i>
Obtala	130,524,660	51.1	130,524,660	46.0
Oak Nominees (on behalf of MWI)	83,979,450	32.9	83,979,450	29.6
Oak Nominees (on behalf of VML)	32,640,000	12.8	32,640,000	11.5
VMI	8,160,000	3.2	8,160,000	2.9
Blackrock Investment Management	Nil	Nil	20,000,000	7.0

8.10 The Shareholders listed in paragraph 8.1 and 8.9 of this Part VIII do not have different voting rights from other Shareholders.

8.11 So far as the Company is aware, the Company is not owned or controlled directly or indirectly by any entity. The Company is not aware of any other persons who, immediately following Admission, will directly or indirectly, jointly or severally, exercise or could exercise control over the Company.

8.12 In addition, so far as the Company is aware, there are no arrangements in place, the operation of which may at a subsequent date result in a change of control of the Company.

## **9. DIRECTORS' TERMS OF APPOINTMENT**

- 9.1 Set out below are summary details of the Company's current terms of appointment with each Director:
- (a) On 20 March 2012, Fortune Mojapelo entered into a service agreement with the Company under the terms of which he agreed to act as the Chief Executive Officer for a basic salary of £100,000 per annum, such salary to be reviewed annually. The service agreement shall be terminable by either party giving to the other not less than 6 months' written notice. Mr Mojapelo may also be entitled to a bonus at the absolute discretion of the Company's remuneration committee. In addition, the service agreement contains detailed provisions relating to confidentiality, intellectual property and various post-termination restrictions, including a restriction for 6 months prohibiting him from being engaged in a business which competes with the business of the Company and restrictions for 6 months prohibiting him from soliciting or dealing with any customers or clients, or soliciting any key business suppliers, employees or consultants. Upon termination no benefits (other than those accruing during the notice period) will be due to the director.
  - (b) On 20 March 2012, Anthony Viljoen entered into a service agreement with the Company under the terms of which he agreed to act as an Executive Director for a basic salary of £100,000 per annum, such salary to be reviewed annually. The service agreement shall be terminable by either party giving to the other not less than 6 months' written notice. Mr Viljoen may also be entitled to a bonus at the absolute discretion of the Company's remuneration committee. In addition, the service agreement contains detailed provisions relating to confidentiality, intellectual property and various post-termination restrictions, including a restriction for 6 months prohibiting him from being engaged in a business which competes with the business of the Company and restrictions for 6 months prohibiting him from soliciting or dealing with any customers or clients, or soliciting any key business suppliers, employees or consultants. Upon termination no benefits (other than those accruing during the notice period) will be due to the director.
  - (c) On 20 March 2012, Geoff Sproule entered into a service agreement with the Company under the terms of which he agreed to act as the Chief Financial Officer for a basic salary of £90,000 per annum, such salary to be reviewed annually. The service agreement shall be terminable by either party giving to the other not less than 6 months' written notice. Mr Sproule may also be entitled to a bonus at the absolute discretion of the Company's remuneration committee. In addition, the service agreement contains detailed provisions relating to confidentiality, intellectual property and various post-termination restrictions, including a restriction for 6 months prohibiting him from being engaged in a business which competes with the business of the Company and restrictions for 6 months prohibiting him from soliciting or dealing with any customers or clients, or soliciting any key business suppliers, employees or consultants. Upon termination no benefits (other than those accruing during the notice period) will be due to the director.
- 9.2 Following Admission, the Company intends to enter into non-executive letters of appointment with each of Ian Watson and Jeremy Friedlander. The terms of such documents and the levels of remuneration will be agreed by the Board after Admission.
- 9.3 The Board considers that the levels of executive board remuneration are below those typical in companies admitted to trading on AIM.
- 9.4 No Director is entitled to receive any benefits upon termination of his service agreement or letter of appointment other than salary and benefits accrued on the date of such termination.
- 9.5 Except as disclosed in this paragraph 9, there are no existing or proposed service agreements or consultancy agreements between any Director and the Company, whether providing for benefits upon termination of employment or otherwise, and no such agreements have been entered into, replaced or amended within the six months preceding the date of this Document.

## 10. EMPLOYEES

- 10.1 At the date of this Document the Group has four employees (excluding executive Directors) and three project based and contractual workers, all of whom work in South Africa. The Directors expect that the Group will have the same number of employees and contractual workers on Admission.
- 10.2 On 20 March 2012 the Company entered into agreements with each of its consultants, Prof. Richard Viljoen and Prof. Morris Viljoen, whereby the consultants agreed to provide certain services to the Group and devote such time as may be reasonably necessary in the provision of such services, in return for a fee of £56,250 each per annum. The consultancy agreements are terminable on 3 months' notice by either the Company or the consultant.

## 11. MATERIAL CONTRACTS

The Company or a member of the Group has entered into the following contracts, not being contracts entered into in the ordinary course of business, in the two year period preceding the publication date of this Document which are material to the Company or a member of the Group:

### 11.1 *Contracts relating to Admission and the Placing*

(a) *Placing Agreement*

Pursuant to the Placing Agreement dated 20 March 2012 between the Company (1), the Directors (2), and Fox-Davies Capital (3), conditional upon, *inter alia*, Admission taking place no later than 4.30 p.m. on 23 March 2012 (or such later time and or date as the Company, the Directors and Fox-Davies Capital may agree, being not later than 31 March 2012) Fox-Davies Capital has agreed to use reasonable endeavours to procure subscribers for the Placing Shares at the Placing Price. The Placing Agreement contains warranties and indemnities from the Company and the Directors in favour of Fox-Davies Capital together with provisions which enable Fox-Davies Capital to terminate the Placing Agreement in certain circumstances prior to Admission, including circumstances where any warranties are found to be untrue or inaccurate in any material respect. The liability of the Directors under the Placing Agreement is limited. Under the Placing Agreement the Directors have agreed not to dispose of any shares for a period of 12 months following Admission and for a further 12 month period to only dispose of shares through Fox Davies, so as to maintain an orderly market in the Ordinary Shares.

(b) *Lock-in Agreements*

Pursuant to the Lock-In Agreements between the Company (1), Fox Davies (2), and each of Obtala, MWI, VML, VMI and Andrew Fox (3) (the "Locked-in Parties"), the Locked in Parties have undertaken that they will not dispose of any Ordinary Shares save in accordance with the AIM Rules until one year from the date of Admission, and then for a further 12 months will only dispose of Ordinary Shares through Fox-Davies on an orderly market basis.

(c) *Nominated Adviser and Broker Agreement*

Pursuant to the Nominated Advisor and Broker Agreement dated 20 March 2012 between the Company and Fox-Davies Capital Limited the Company has appointed Fox-Davies Capital to act as Nominated Advisor and Broker to the Company for the purposes of the AIM Rules. The agreement contains certain undertakings and indemnities given by the Company in respect of, *inter alia*, compliance with all applicable laws and regulations. The agreement continues for a fixed period of 12 months from the date of the agreement and, thereafter, is subject to termination on the giving of 3 months notice.

(d) *Relationship Agreement*

Pursuant to the Relationship Agreement dated 20 March 2012 between the Company (1), Obtala (2) and Fox-Davies (3), conditional upon Admission, Obtala has undertaken to the



Company and Fox-Davies that for so long as it and its associates hold 30 per cent. or more of the voting rights attached to the issued Ordinary Shares, it shall (and as far as it is able to do shall procure that its associates shall) use its reasonable endeavours to procure (including by the exercise of its voting rights) that the Group is capable of carrying on business independently of it, that the Articles are not amended to fetter the Company's ability to carry out its business independently of it, that transactions between any member of the Group and Obtala are made at arm's length on a normal commercial basis and approved by directors independent of it and that any disputes between it and any member of the Group shall be dealt with by a committee comprising only independent directors. Additionally, Obtala shall not seek to appoint or remove any director other than with the support of the independent directors.

## 11.2 *Other material contracts*

### (a) *Greenhills Subscription and Shareholders' Agreement*

On or around 5 March 2011 Greenhills entered into a conditional shareholders' and subscription agreement (the "**Subscription Agreement**") with VML and Obtala, which was then varied by a deed of variation entered into on 15 March 2012 (the "**Greenhills Deed of Variation**"). The Subscription Agreement, as varied by the Greenhills Deed of Variation contains provisions, among others, to the following effect:

- (i) certain conditions contained in the Subscription Agreement were waived by Obtala pursuant to the Greenhills Deed of Variation (to the extent they had not been satisfied);
- (ii) completion of the Subscription Agreement was effected by the Greenhills Deed of Variation on 15 March 2012, and on that date Obtala subscribed for 100 ordinary shares of £1.00 each in the capital of Greenhills (being 50 per cent. of its enlarged issued share capital);
- (iii) pursuant to the Greenhills Deed of Variation, Obtala, VML and Greenhills agreed that the aggregate subscription payable by Obtala to Greenhills would be reduced from \$4 million to \$3.75 million;
- (iv) certain other provisions of the Subscription Agreement were terminated pursuant to the Greenhills Deed of Variation, but not for the avoidance of doubt the warranties given by each of VML and Greenhills in favour of Obtala.

### (b) *Greenhills Share for Share Exchange Agreement*

On 15 March 2012, the Company entered into a share for share exchange agreement with Obtala, VML and VMI pursuant to which the Company agreed to acquire the entire issued share capital of Greenhills ("**Greenhills Share Agreement**"). The consideration for the acquisition of the shares in Greenhills was £16,319,320 which was satisfied by the issue and allotment of 40,798,300 Ordinary Shares to Obtala and 32,638,300 Ordinary Shares to VML. At the direction of VML, 8,160,000 Ordinary Shares were issued to VMI. The Greenhills Share Agreement contains an indemnity from VML to the Company in relation to historic liabilities owed to it and third parties and warranties in favour of the Company from Obtala and VML.

### (c) *Renetype Shareholders' Agreement*

On 9 March 2010 Renetype entered into a shareholders' agreement with VMI, Cannosia and Awevest ("**Renetype Shareholders Agreement**"). The Renetype Shareholders' Agreement contains provisions, among others, to the following effect:

- (i) VMI, Cannosia and Awevest agreed to subscribe respectively for 74, 16 and 10 ordinary shares of par value 1 Rand in Renetype on 1 August 2010;

- (ii) the shareholders appointed VMI as the operator of Renetype with overall management responsibility for Renetype's business. In addition, VMI was given certain powers and duties to be discharged and performed in accordance with the agreement;
  - (iii) Renetype shall pay VMI for its services as operator at a rate to be agreed by the directors of Renetype from to time;
  - (iv) the shareholders agreed not to sell, encumber or otherwise dispose of any interest in shares except in accordance with the pre-emption provisions in the Renetype Shareholders Agreement; and
  - (v) Renetype (save with the shareholders written consent) will not declare any dividends for a period of five years from 9 March 2010.
- (d) *Deeds of Adherence to the Renetype Shareholders Agreement*
- On 15 March 2012, Mokopane, Renetype and Cannosia entered into a deed of adherence ("**Renetype Deed of Adherence**") whereby such parties agreed that Mokopane would accept the rights and obligations under the Renetype Shareholders Agreement in place of VMI. Under the Renetype Deed of Adherence, the appointment of VMI as operator was terminated, and VMI agreed to give certain indemnities in favour of the other parties in relation to any amounts owed by Renetype to VMI (including any operator's fee) or any other third party. The Renetype Deed of Adherence also amended the Renetype Shareholders Agreement by including a failure by Cannosia to remain compliant with the BEE as a forced transfer event. On 20 March 2012, Mokopane and Awevest entered into a deed of adherence whereby the parties accepted that Mokopane would accept the rights and obligations under the Renetype Shareholders' Agreement in place of VMI, and Awevest agreed to retain its HDSA shares at all times.
- (e) *Sale of Shares Agreement*
- VMI, Mokopane, Cannosia, Awevest and Renetype entered into a conditional sale of shares agreement with effect from 27 May 2011 pursuant to which VMI sold its entire shareholding in Renetype (being 74 per cent. of the entire issued share capital) to Mokopane ("**Sale of Shares Agreement**"). The Sale of Shares Agreement is conditional upon certain conditions being satisfied or waived by no later than 28 February 2012 and the shares were issued to Mokopane on 28 July 2011. The consideration payable by Mokopane for the acquisition of the shares is 1,000,000 Rand.
- The Sale of Shares Agreement contains certain warranties in favour of Mokopane from VMI.
- (f) *Sale of Prospecting Right Agreement*
- On 23 May 2011, Renetype entered into a sale of prospecting right agreement ("**Sale of Prospecting Right Agreement**") with VMI to acquire Prospecting Right 2205. The agreement is conditional upon certain conditions being satisfied by 30 November 2011 or a later date agreed by Renetype and VMI. The consideration payable by Renetype for the acquisition of the prospecting right is one Rand plus VAT. Renetype and VMI entered into a notarial deed of cession pursuant to the Sale of Prospecting Right Agreement on 12 March 2012, and applied to register Renetype as the holder of Prospecting Right 2205 at the MPTR0 on 16 March 2012.
- (g) *Consultancy Agreement between Mokopane and VMI*
- On 27 May 2011, Mokopane and VMI entered into a consultancy agreement whereby Mokopane agreed to pay VMI R150,00 per month for consultancy services. This agreement was terminated on 15 March 2012.

(h) *Consultancy Agreement between Greenhills and VML*

On 6 April 2011, Greenhills entered into a consultancy agreement with VML whereby from 1 March 2011, VML agreed to provide specific services to Greenhills in relation to its day to day operation and exploration activities (“**Services**”). Greenhills agreed to pay VML an initial bonus of US\$2 million for the Services, payable in two instalments and thereafter a consultancy fee of US\$500,000 per year. This agreement was terminated on 15 March 2012 and VML waived its entitlement to all amounts payable for the services other than the first instalment of US\$1 million.

(i) *Consultancy Agreement between VMI, Bushveld Resources and Greenhills*

On 20 March 2012 VMI, Bushveld Resources and Greenhills entered into a consultancy agreement whereby VMI agreed to provide consultancy services to the Group. The services to be provided and the amounts to be charged would be agreed by the parties from time to time in accordance with the commercial requirements of the Group.

(j) *Bushveld Share Purchase Agreement*

On or around 6 March 2011 Obtala and Bendell entered into a conditional share purchase agreement (the “**Share Purchase Agreement**”) with MWI and Obtala, which was then varied by a deed of variation entered into on 15 March 2012 (the “**Bushveld Deed of Variation**”). The Share Purchase Agreement, as varied by the Bushveld Deed of Variation contains provisions, among others, to the following effect:

- (i) certain conditions contained in the Share Purchase Agreement were waived by Obtala and Bendell pursuant to the Bushveld Deed of Variation (to the extent they had not been satisfied);
- (ii) pursuant to the Bushveld Deed of Variation, shares in the capital of Bushveld Resources were issued to MWI as capitalisation of certain amounts owed to MWI;
- (iii) part of the consideration payable by Bendell to MWI under the Share Purchase Agreement (being \$500,000 in cash) was waived by MWI pursuant to the Bushveld Deed of Variation;
- (iv) completion of the Share Purchase Agreement was effected by the Bushveld Deed of Variation on 15 March 2012, and on that date Obtala (in place of Bendell) acquired 5,000 ordinary shares of £1.00 each in the capital of Bushveld Resources (being 50 per cent. of its issued share capital);
- (v) on completion Obtala also paid the remaining consideration due to MWI, being the issue of 11,949,378 ordinary shares in the capital of Obtala;
- (vi) certain other provisions of the Share Purchase Agreement were terminated pursuant to the Bushveld Deed of Variation, but not for the avoidance of doubt the warranties given by MWI in favour of Bendell;
- (vii) pursuant to the Bushveld Deed of Variation, Bushveld Resources agreed to the subdivision of the Bushveld Group’s prospecting licences in order to transfer out its interest in platinum group metals and certain other minerals that do not form part of the Bushveld Iron Ore Project (at the cost of MWI). In the event that the interest cannot be subdivided, Bushveld Resources and MWI would discuss in good faith how to enable MWI to achieve the benefit of such platinum interest.

(k) *Bushveld Shareholders’ Agreement*

On or around 6 March 2011 MWI, Obtala, Bendell and Bushveld Resources entered into a shareholders’ agreement relating to the holding of shares in Bushveld Resources. This was terminated on 15 March 2012.

- (l) *Bushveld Framework Agreement*  
On or around 6 March 2011 MWI, Obtala, Bendell, Bushveld Resources, Pamish 39 and Pamish 63 entered into a framework agreement setting out various steps that the parties had agreed to take in relation to Bushveld Resources. This was terminated on 15 March 2012.
- (m) *Bushveld Share for Share Exchange Agreement*  
On 15 March 2012, the Company entered into a share for share exchange agreement with Obtala and MWI pursuant to which the Company agreed to acquire the entire issued share capital of Bushveld Resources (“**Bushveld Share Agreement**”). The consideration for the acquisition of the shares in Bushveld Resources was £35,012,502 which was satisfied by the issue and allotment of 89,721,360 Ordinary Shares to Obtala and 83,976,150 Ordinary Shares to MWI. In addition, the Bushveld Share Agreement provided that additional consideration was payable to Obtala amounting to 5 per cent. of the amount raised pursuant to the Placing, payable in cash or in Ordinary Shares at the Placing Price at the discretion of Obtala, and additional consideration was payable to Obtala and MWI, in the amounts of US\$3.75 million (less 5 per cent. of the amount raised pursuant to the Placing) and £955,890 respectively, payable in Ordinary Shares at the Placing Price. The Bushveld Share Agreement contains an indemnity from MWI to the Company, Bushveld Resources, Pamish 39, Frontier Platinum and Amaraka in relation to historic liabilities owed to it and third parties and warranties in favour of the Company from Obtala and MWI.
- (n) *Pamish 39 Strategic Association Agreement*  
On 18 June 2008 Izingwe, Bushveld Resources and Pamish 39 entered into a strategic association agreement relating to certain steps the parties agreed to take in relation to the incorporation of Pamish 39 and the relationship between Izingwe and Bushveld Resources as shareholders in Pamish 39. Pursuant to such agreement, Bushveld Resources is obliged to provide certain funding to Pamish 39 (that is capitalised as equity) and pay a management fee of SAR 30,000 per month to Izingwe. Izingwe and Pamish 39 entered into a notarial deed of cession to transfer Prospecting Right 95 on 26 October 2011, and applied to register Pamish 39 as the holder of such right at the MPTRO on 20 March 2012.
- (o) *Amaraka Strategic Association Agreement*  
On 28 December 2010 AMM, Pamish 63 and Amaraka entered into a strategic association agreement relating to certain steps the parties agreed to take in relation to the incorporation of Amaraka, and the relationship between AMM and Pamish 63 as shareholders in Amaraka.
- (p) *Amaraka Strategic Investment Agreement*  
On 13 May 2011 AMM, Pamish 63, Bushveld Resources and Amaraka entered into a strategic investment agreement pursuant to which Bushveld Resources would acquire 55 per cent. of the issued share capital of Amaraka. Bushveld Resources would be obliged to provide funding of up to SAR 14,000,000 to Amaraka (capitalised as equity) in exchange for its 55 per cent. equity interest.
- (q) *Amaraka Sale of Shares Agreement*  
On 15 March 2012, Bushveld Resources, VMI and Pamish 63 entered into and completed a sale of shares and claims agreement, whereby Bushveld Resources agreed to purchase the 13.5 per cent. of the issued share capital of Amaraka held by Pamish 63 for a purchase price of SAR 1,000,000. Pursuant to this agreement Pamish 63’s appointment as operator was terminated and VMI agreed to give certain indemnities to Bushveld Resources.
- (r) *Corpington Agreement*  
On 4 February 2010, Bushveld Resources entered into an agreement with Corpington Limited (“Corpington”) to give Corpington a 2.5 per cent. interest in Frontier Platinum and an option

to subscribe for a further 2 per cent. interest in Frontier Platinum in exchange for certain negotiation services. Corpington and Bushveld Resources are currently in discussions regarding terminating this agreement and granting Corpington certain options in the Company in its place.

## **12. TAXATION**

The following information is based on the tax law and tax authorities' practice currently in force at the date of this document in the UK and Guernsey. This information is not exhaustive and potential investors should consult their professional advisers on the implications of subscribing for, buying, holding, selling, redeeming or disposing of Ordinary Shares under the laws of the jurisdictions in which they may be liable to taxation. The statements do not constitute advice to any shareholder. Investors should note that tax law and interpretation can change and that, in particular, the levels and bases of, and reliefs from, taxation may change and that changes may alter the benefits of investment in the Company.

The information only applies to persons who are resident in Guernsey or resident and (in the case of an individual) ordinarily resident in (and only in) the UK and only applies to persons who hold their Ordinary Shares as investments and are the absolute beneficial owners of them. The information in both the UK and Guernsey sections below is applicable to such investors.

### **United Kingdom Taxation**

#### ***Dividends – Individuals***

Individual Shareholders who are resident or ordinarily resident in the United Kingdom for tax purposes, and who hold their Ordinary Shares as investments, will be liable to income tax on the gross amount of dividends from the Company. To the extent that such a dividend is brought within the charge to UK tax, the shareholder may be entitled to a UK tax credit which may be offset against the income tax liability arising on the dividend. If available, the tax credit will be equal to 10 per cent. of the gross dividend (i.e. the tax credit will be one ninth of the amount of the net cash dividend). A shareholder who is not subject to income tax on the dividend will not be entitled to reclaim any of the tax credit.

Shareholders who are liable to income tax at the basic rate will be liable to income tax at the rate of 10 per cent. of the gross dividend so that the tax credit will satisfy in full that shareholder's liability to income tax. Shareholders who are liable to income tax at the higher rate will be liable to income tax at the rate of 32.5 per cent. of the gross dividend but will be able to offset the tax credit against this liability so that the shareholder will have to account for additional income tax equal to 25 per cent. of the net cash dividend received. Dividends received by UK resident shareholders with taxable income in excess of £150,000 are subject to income tax on the gross dividend at 42.5 per cent. The tax credit, if available, will have the effect that such shareholders will have to account for additional UK tax equal to 36.11 per cent. of the net cash dividend received.

Individual holders of Ordinary Shares who are UK resident or ordinarily resident but who are not domiciled in the UK, will only be subject to UK income tax as described above if and to the extent that such income is remitted or deemed to be remitted to the UK.

#### ***Dividends – Companies***

Companies that are resident in the UK for tax purposes will generally be exempt from corporation tax on dividends received. There are various exceptions to this exemption, depending on the size of the shareholder, and whether certain anti-avoidance provisions apply. Corporate shareholders should confirm their tax position with a specialist tax adviser.

#### ***Chargeable Gains – Individuals***

In the case of those Shareholders who are individuals or otherwise not within the charge to corporation tax and who hold their Shares as investments, capital gains tax may be payable on a disposal of Ordinary Shares. The rate of capital gains tax is currently 18 per cent. and 28 per cent. for higher rate taxpayers.

### ***Chargeable Gains – Companies***

Shareholders within the charge to UK corporation tax may be subject to corporation tax on capital gains in respect of any gain arising on a disposal of Ordinary Shares. Indexation allowance may apply to reduce any chargeable gain arising on disposal of the Ordinary Shares. An exemption from corporation tax on any such gain may be available if the corporate Shareholder holds at least 10 per cent. of the Company's ordinary share capital.

### ***Controlled Foreign Companies***

If the Company is owned by a majority of persons resident in the UK, the controlled foreign companies legislation may apply to any corporate Shareholders who are resident in the UK. Under these rules, part of any undistributed income accruing to the Company or its non-UK subsidiaries may be attributed to, and chargeable to UK corporation tax in the hands of, the Shareholder. However, this will only apply if the apportionment to that Shareholder (when aggregated with persons connected or associated with it) is at least 25 per cent. of the Company's relevant profits.

### ***Stamp Duty and Stamp Duty Reserve Tax***

No liability to stamp duty or stamp duty reserve tax ("SDRT") will arise on the allotment of New Ordinary Shares by the Company pursuant to the Placing.

Any subsequent conveyance or transfer on sale of Ordinary Shares outside CREST will not normally be subject to stamp duty or SDRT provided the instrument of transfer is not executed in the UK and there is no matter or thing in relation to such transfer done, or to be done, in the UK.

Similarly an unconditional agreement to transfer such Ordinary Shares outside CREST will not normally give rise to SDRT, provided that (i) the Ordinary Shares are not maintained on a share register in the UK, and (ii) the Ordinary Shares are not paired with any UK shares.

Under the CREST system for paperless share transfers, no stamp duty or SDRT will arise on a transfer of shares into the system, unless the transfer into CREST is itself for consideration in money or moneys' worth, in which case a liability to SDRT will arise, usually at the rate of 0.5 per cent. of the amount or value of consideration given. Transfers or shares within CREST are generally not liable to SDRT.

The above statements are intended as a general guide to the current stamp duty and SDRT position. Certain categories of person, including market makers, brokers, dealers and persons connected with depository arrangements and clearance services, are not liable to stamp duty or SDRT and others may be liable at a higher rate or may, although not primarily liable for the tax, be required to notify and account for it under the Stamp Duty Reserve Tax Regulations 1986.

### ***Guernsey***

The following summary of the anticipated treatment of the Company and holders of shares (other than holders who are tax resident in Guernsey, Alderney or Herm) is based on Guernsey taxation law as it is understood to apply at the date of this Document. It does not constitute legal or tax advice.

### ***The Company***

Under the Income Tax (Guernsey) Law, 1975, as amended (the "Guernsey Income Tax Law"), the Company will be regarded as resident in Guernsey for tax purposes, in which case the Company will submit a Guernsey tax return. In Guernsey, the standard rate of income tax on company profits is 0 per cent., with income derived from certain regulated banking activities subject to the company intermediate rate of 10 per cent. and income from the ownership or disposal of land in Guernsey subject to tax at the rate of 20 per cent. The Company is currently a zero-rated company and is taxed at Guernsey company standard rate of 0 per cent.

There is currently no goods or services tax in Guernsey. Guernsey does not currently levy taxes upon capital inheritances, capital gains, gifts, sales or turnover, nor are there any estate duties, save for an *ad valorem* fee for the grant of probate or letters of administration.

No stamp duty is payable in Guernsey on the issue or on any transfer of shares.

The States of Guernsey passed a resolution on 27 October 2009 to review the current corporate income tax regime in light of the view of certain members of the European Union Code of Conduct Group on Business Taxation that the Zero-10 tax regime no longer complied with the “spirit” of the EU Code of Conduct for business taxation. Until such time as the review is complete, the existing corporate income tax regime remains in place. No announcements have been made regarding specific changes to Guernsey’s tax regime, but it is anticipated that any changes introduced will not take effect until after 2012 at the earliest and may include transitional provisions.

### ***Holders of shares***

Holders of shares (other than holders who are tax resident in Guernsey, Alderney or Herm) will not be subject to any tax in Guernsey in respect of the holding, sale or other disposition of such shares.

**If you are in any doubt as to your position, or are subject to taxation in a jurisdiction other than the United Kingdom or Guernsey you should consult an appropriate professional advisor without delay.**

## **13. WORKING CAPITAL**

In the opinion of the Directors, having made due and careful enquiry, the working capital available to the Group will be sufficient for its present requirements, that is, for at least twelve months from the date of Admission.

## **14. LITIGATION**

The Group is not and has not been involved in any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Group is aware), during the 12 months preceding the date of this Document, which have had in the recent past, or may have, significant effects on the Group’s financial position or profitability.

## **15. RELATED PARTY TRANSACTIONS**

The Company has entered into the following arrangements which are or may be regarded as related party arrangements:

- 15.1 a share for share exchange agreement between the Company, Obtala, VML and VMI dated 15 March 2012 pursuant to which the Company acquired the entire issued share capital of Greenhills in exchange for Ordinary Shares. Further details of this agreement are set out in paragraph 11.2(b) of Part VIII;
- 15.2 a share for share exchange agreement between the Company, Obtala and MWI dated 15 March 2012 pursuant to which the Company acquired the entire issued share capital of Bushveld Resources in exchange for Ordinary Shares. Further details of this agreement are set out in paragraph 11.2(m) of Part VIII;
- 15.3 the Relationship Agreement entered into between the Company, Obtala and Fox-Davies dated 20 March 2012 to govern the relationship between the Company and Obtala. Further details of this agreement are set out in paragraph 11.1(d) of Part VIII;
- 15.4 the Lock-in Agreements entered into between the Company, Fox-Davies and each of Obtala, MWI, VML, VMI and Andrew Fox dated 20 March 2012 which provide certain restrictions on the rights of Obtala, MWI, VML, VMI and Andrew Fox to dispose of their Ordinary Shares. Further details of these agreements are set out in paragraph 11.1(b) of Part VIII;
- 15.5 the service agreements between the Company and each of Fortune Mojapelo, Anthony Viljoen and Geoff Sproule dated 20 March 2012, further details of which are set out in paragraph 9.1 of Part VIII.

## 16. SIGNIFICANT CHANGE

There has been no significant change in the financial or trading position of the Bushveld Resources Group since 31 August 2011, being the end of the last financial period for which financial information has been published as set out in Section H of Part VII of this document.

There has been no significant change in the financial or trading position of the Greenhills Group since 31 August 2011 being the end of the last financial period for which financial information has been published as set out in Section D of Part VII of this document.

## 17. GENERAL

17.1 The gross proceeds of the Placing are expected to be £5,460,000. Assuming Admission takes place, the total costs and expenses payable by the Company in connection with Admission and the Placing (including professional fees, the cost of printing and the fees payable to the Company's legal and other professional advisers) are estimated at approximately £600,000, including irrecoverable VAT. The net proceeds of the Placing are expected to be £4,860,000.

17.2 Save as disclosed in this Document, no person (other than a professional adviser referred to in this Document or trade suppliers dealing with the Company) has:

- (a) received, directly or indirectly, from the Company, within the twelve months preceding the Company's application for Admission; or
- (b) entered into any contractual arrangement (not otherwise disclosed in this Document), to receive, directly or indirectly, from the Company on or after Admission,

any of the following:

- (i) fees totalling £10,000 or more;
- (ii) securities in the Company with a value of £10,000 or more calculated by reference to the Placing Price; or
- (iii) any other benefit with a value of £10,000 or more at the date of Admission.

VMI (which is owned equally by Fortune Mojapelo and Anthony Viljoen) received 8,160,000 Ordinary Shares on 15 March 2012 from VML (as set out in paragraph 11.2(b) of this Part VIII). The value of such Ordinary Shares will be £1,632,000 as at the date of Admission.

17.3 The information in this Document that has been sourced from a third party has been accurately reproduced and, so far as the Company is aware and is able to ascertain from information published by that third party, no material facts have been omitted which would render the reproduced information inaccurate or misleading.

17.4 Baker Tilly Corporate Finance LLP has given and not withdrawn its written consent to the inclusion of its name, and its reports in Sections A, C, E and G of Part VII of this Document, each in the form and in the context in which they are included, and has authorised the contents of its reports for the purposes of Schedule 2 of the AIM Rules for Companies.

17.5 MSA Geoservices (Pty) Limited has given and not withdrawn its written consent to the inclusion of its name, and its reports in Part VI of this Document, each in the form and in the context in which they are included, and has authorised the contents of its reports for the purposes of Schedule 2 of the AIM Rules for Companies.

17.6 Fox-Davies has given and not withdrawn its written consent to the inclusion in this Document of the references to its name in the form and in the context in which they appear.

17.7 Save as disclosed in this Document, the Directors are unaware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the Group's prospects for the financial year ending 28 February 2012.



## **18. AVAILABILITY OF DOCUMENT**

A copy of this Document will be available, free of charge, during normal business hours on any day (except Saturdays, Sundays and public holidays) at the registered office of the Company and the offices of Fox-Davies Capital Limited at 1 Tudor Street, London EC4Y 0AH from the date of this Document for a period of one month from the date of Admission. A copy of this Document is also available free of charge on the Company's website [www.bushveldminerals.com](http://www.bushveldminerals.com).

March 2012



## Bushveld Minerals Limited

18-20 Le Pollet  
St Peter Port  
Guernsey  
GY1 1WH

Email: [info@bushveldminerals.com](mailto:info@bushveldminerals.com)  
Website: [www.bushveldminerals.com](http://www.bushveldminerals.com)

Suite 3a, 5 Fricker Road  
Illovo  
Johannesburg, 2116  
South Africa

T +27(0) 11 268 6555  
F +27(0) 11 268 5170

