

Stock Data

Share Price:	0.28p
Market Cap:	£8.10m
Shares in issue:	2,893m
52-week high/low:	1.40p/0.26p

Company Profile

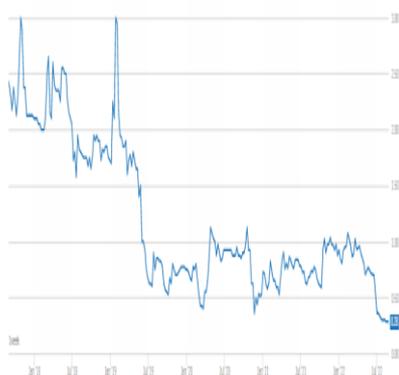
Sector:	Mining
Ticker:	IRON
Exchange:	AIM

Activities

Ironveld plc ('Ironveld' or 'the Group') is the owner of mining rights over approximately 28 kilometres of outcropping Bushveld magnetite with a JORC compliant ore resource of some 56 million tons of ore grading 1.12% V₂O₅, 68.6% Fe₂O₃ and 14.7% TiO₂.

www.ironveld.com/

5-year share price performance



Source: [LSE](#)

Past performance is not an indication of future performance.

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Ironveld

Ironveld has announced its signing of the Share Purchase Agreement ('SPA') required to complete its acquisition of 100% of the share capital of Ferrochrome Furnaces (Pty) Limited ('FCF') ('the Acquisition') which will provide it with an existing smelting facility. Secured on highly attractive terms, this Rustenburg, South Africa, facility presents the opportunity to substantially de-risk the Group's potentially world-class high purity iron, vanadium and titanium project in the Bushveld ('the Project'), while allowing production that is expected to lead to early generation of cash flows. The purchase price plus refurbishment capex (including contingency) and ongoing working capital, is being provided through the c.£4.2m net proceeds Ironveld generated through its recently completed equity Placing and Broker Option. With three furnaces projected to come on stream within just 6 to 9 months, this potentially transformative acquisition positions the Group to fast-track generation of first revenue through already existing offtake/sales agreements one year or less post acquisition. Providing a demonstration platform capable of securing initial production/commercial sales, this nevertheless represents just the first of three expansion phases proposed by the Board capable of multiplying output from the Project's very large resource. Ironveld now appears positioned to become cash generative within the Project's first year of production.

Purchase terms agreed to acquire 100% of the asset

FCF owns a former ferrochrome smelter complex that entered Business Rescue in 2019. Through its 74%-owned subsidiary company, Ironveld Smelting Proprietary Limited, the Group has agreed with Business Rescue Practitioners, Tayfin Forensic and Investigative Auditors, and the sole creditor terms to acquire 100% of the asset on the following basis:

- Acquire 100% of FCF's share capital for a nominal ZAR 980 (c.£50)
- ZAR 15 million (approximately £0.75 million) payable to the sole creditor upon completion; and
- ZAR 100 million (approximately £5.0 million) paid to the sole creditor over 10 years, being calculated as a percentage of profits from the smelter, capped at 13.5 per cent per annum.

The SPA has a limited number of standard Conditions Precedent remaining including the signing of a Debt Purchase Agreement ('DPA') between Ironveld and the sole creditor for a total of ZAR 115 million (approximately £5.75 million), which is expected to be completed in the next two to four weeks.

Complex comprises four mothballed 2.5 MW Electric Arc Furnaces

The smelter complex comprises four mothballed 2.5 MW Electric Arc Furnaces ('EAFs') and associated converters, of which Ironveld plans to refurbish three during the upgrade works thereby allowing for 7.5 MW capacity, capable of processing approximately 40,000 tonnes of the mine's magnetite ore per annum. The fourth EAF will be held in reserve for future refurbishment, with the potential of increasing total processing capacity or for outsourcing; FCF's initial refurbishment, which is expected to enable the smelter to generate three separate economic streams of revenue, has been budgeted at ZAR 40 million (approximately £2.0 million) to provide:

- Production ready smelting plant with 3 furnaces totalling 7.5 MW (with 1 spare furnace ready for future use);
- Short commissioning eliminates construction risk, enabling fast-track to sales of all processed production in 9 to 12 months from acquisition.

Location of the Project's Mining Area and FCF Smelter

- Ore to be cost effectively trucked c 400km to FCF Facility
- 3 furnaces at 7.5MW throughput requires <4,000tpm mined ore



- FCF footprint = 5.9 Ha
 - Land value approximately ZAR 10 million
 - Insurance valuation approx. ZAR 600 million (£30m)
 - Room for extensive solar provision and expansion if required
- High Purity Iron, Vanadium & Titanium Project**

Source: Ironveld, Investor Presentation June 2022



As was announced on 11 August 2022, Ironveld's team of specialist contractors has already commenced on site work. Industrial cleaning work has already been successfully completed and the initial works programme, which includes security as well as water, electrical and gas supply servicing and safety checks, is ongoing. In addition, mechanical, structural compliance checks and statutory certification will be completed. Following this, the planned refurbishment and upgrades across the facility, which will allow the first of the three furnaces to commence production, will be undertaken. As was previously noted, this planned refurbishment is expected to take six to nine months.

Further planned upgrades to the smelter, prospectively costing a further ZAR 25 million (c.£1.2m), for high purity iron powder production remains on the table for when cashflows allow, which will enable upgrading of the high purity iron product to higher value powder form. Comprehensive diligence and upgrade planning has been undertaken, with no environmental issues established. The site's acquisition price appears to be supported by its installed infrastructure plus 5.9Ha land value alone. Ironveld has been advised by its insurance brokers and technical consultants to insure the facility for at least ZAR600 million (approximately £30 million) following completion of the transaction.

The smelter complex is currently supplied with electricity from the national grid. Emphasising its Environmental Social Governance ('ESG') credentials, however, Ironveld has signed a Letter of Intent ('LoI') with Enernet Global Inc., the international distributor of tailored energy solutions, to build, own, operate and maintain a hybrid power plant using renewable energy (including solar, battery storage and thermal generation that will scale over time to ensure at least 50% of all consumption at each stage), which will provide it with security of power supply on a capex-free basis. Furthermore, the uses of its final products, including vanadium redox/other batteries and 3D printing in industries such as transport/renewable energy, are key constituents for markets that make up the expanding green economy.

Mined ore can be cost-effectively trucked the c.400km from the Bushveld complex to FCF facility smelter gate. Following refurbishment of the smelter facility, Ironveld will be able to produce and sell its key products (high purity iron, vanadium in slag and titanium in slag), through its existing offtake contracts (including a formal 5-year contract that has been secured with Glencore (LSE: GLEN) for all vanadium slag production commencing from the start of commercial production, linked to index-based prices.) or marketing agreements. First sales are anticipated within 12 months of completion of the Acquisition.

Three separate phases of commercial expansion provide route to early cash flow

All necessary environmental and other operational permits are in place for the smelter complex to enable Ironveld to rapidly move toward production. Management intends to use mining contractors on site to minimise capex/related start-up costs, while also using community-based transportation companies to transport ore from the mine to the smelter complex. With high local availability of experienced staff for other ancillary works, the Group's Bushveld project is expected to create a total of 140 new jobs within the first 12 months of operation. Agreements with local trucking contractors are already in place with indicative costs to transport from mine gate to smelter (c.400km) put at less than US\$50/tonne. Total mine establishment and commissioning costs (including all social commitments) are estimated to be up to ZAR 5 million (<US\$320,000).

Based on delivery of 40,000 tonnes of ore per annum (<4,000tpm ROM), the smelter is expected to provide the following approximate quantities of finished products per annum: 20,000 tonnes of high purity iron ('HPI', price range US\$900 to US\$1,000/tonne)/HPI Powder (price range US\$1,300 to US\$1,500/tonne); 190 tonnes of vanadium in slag (price range US\$5,000-US\$5,300/tonne); and 3,800 tonnes of titanium in slag (price range US\$200-\$300/tonne). This equates to an annualised run rate of US\$27 million to US\$32 million once the facility is producing and selling iron powders. Given the expected short commissioning and preparation time required, ore stockpiling is likely to commence within 6 weeks whilst the furnace refurbishment is taking place. Estimated operational expenditure ('opex') for High Purity Iron production is comfortably below selling prices, while revenues from the Vanadium and Titanium slag of c US\$2 million per annum would flow straight to the bottom line given their effective zero production cost. Sales Contracts, Approved Supplier or Marketing Agreements are already in place for final output of HPI, HPI Powders, Vanadium Slag offtake and Titanium Slag offtake with a number of senior counterparts and well-known international traders.

While the existing smelter provides a foundation for building a larger scaled-up production facility, the acquired site offers only limited space for expansion. The Board has therefore indicated three separate phases of commercial expansion as detailed below:

- PHASE 1** - The readymade 7.5MW capacity FCF smelter provides a platform for organic growth via demonstration of initial production and sales;
- PHASE 2** - Able to scale the initial project to construct a new 15MW+ smelter located next to the mining area, trebling production. Capex costs (estimated at c.US\$56 million), lenders subject to being satisfied with PHASE 1 proof of concept ('PoC');
- PHASE 3** - Long term objective to add four 75 MW smelters to process the large resource at the Project.

Ironveld's High Purity Iron, Vanadium and Titanium project

Ironveld's mining focus is on its high purity iron, vanadium and titanium project located on the northern limb of the Bushveld complex in Limpopo, South Africa. Bushveld is a known metallogenic province covering approx. 66,000km², which hosts various mineral deposits, including platinum group metals, Vanadium, Chrome, Palladium and Rhodium. The Project has the potential to become a vertically integrated vanadium mining and processing business serving the increasing demand for vanadium in steel alloys and vanadium redox batteries. The Group retains unencumbered rights to:

- 80 million tonnes of magnetite ore - the JORC compliant mineral resources demonstrates that it holds 1.6 billion pounds of Vanadium, the equivalent to four times annual global demand.
- 32 million tons of 99.5% ('High Purity Iron', 'HPI') in situ.
- 9 million tonnes of Titanium.

The Project's 8 April 2013 JORC-compliant mineral resource provided the foundation for a subsequent Definitive Feasibility Study ('DFS') which was published on 23 April 2014. This confirmed its potential to deliver an exceptionally high-grade iron product at 99.5% Fe HPI which typically trades at a premium price in the market. The 56.4Mt ore grading at 1.12% Vanadium Oxide ('V₂O₅') represented almost twice the grade of other Vanadium resources that are currently being mined and processed within the Bushveld Complex.

Ironveld plc – Unique, Undeveloped Polymetallic Project in South Africa's Bushveld Complex



Source: Ironveld, Investor Presentation June 2022

Ironveld's High Purity Iron, Vanadium & Titanium Project

Products – Supplying Growing Demand Markets

PRODUCT*	CURRENT PRICING**	USES
HIGH PURITY IRON POWDER 20,000 tpa	\$1,300-\$1,500/t	<ul style="list-style-type: none"> Sintered components in vehicles, power tools and white goods using Powdered Metallurgy ("PM"): <ul style="list-style-type: none"> Vehicles have 10kg - 27kg of PM components PM manufacturing is quicker, more efficient Other uses – soft magnetic components, welding rods, pharmaceuticals, chemicals, printing, filtration and surface coating
VANADIUM IN SLAG 190 tpa	\$5,000-5,300/t	<ul style="list-style-type: none"> Steel additive to increase strength, toughness and heat resistance <ul style="list-style-type: none"> Used in gears, axles and crankshafts New Vanadium Redox Battery ("VRB") systems under development could significantly impact demand: <ul style="list-style-type: none"> Volume storage for electricity generated by solar and wind
TITANIUM IN SLAG 3,818 tpa	\$200-\$300/t	<ul style="list-style-type: none"> Typically used in alloy with iron, aluminium, molybdenum and manganese Main uses in aerospace, both aircraft and engine Resistant to seawater so also used for hulls and propeller shafts Potential for incorporation in lithium-ion batteries

*Forecast annualised production from FCF Smelter

Source: Ironveld, Investor Presentation June 2022

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