
GLOSSARY OF TECHNICAL TERMS

This glossary contains definitions of certain terms used in this Prospectus in connection with us and our business. Some of these may not correspond to standard industry definitions.

“O”	degrees;
“adit”	a type of entrance to an underground mine which is horizontal or nearly horizontal, usually built into the side of a hill or mountain;
“Al ₂ O ₃ ”	aluminum oxide;
“ball mill”	a rotating cylindrical mill that uses heavy iron balls to grind ore into fine particle powder;
“beneficiation”	a process of crushing and separating ore into valuable substances and waste;
“CaO”	calcium oxide;
“CFR”	cost and freight, a term of sale whereby the seller is considered to have delivered the goods when they pass the ship’s rail in the port of shipment. The seller must pay the costs and freight necessary to bring the goods to the named port of destination but the risk of loss of or damage to the goods, as well as any additional costs incurred after the time of delivery, is transferred from the seller to the buyer;
“CIF”	cost, insurance and freight, a term of sale whereby the seller is considered to have delivered the goods when they pass the ship’s rail in the port of shipment. The seller must pay the costs, insurance and freight necessary to bring the goods to the named port of destination but the risk of loss of or damage to the goods, as well as any additional costs due to events occurring after the time of delivery, is transferred from the seller to the buyer;
“CO ₂ ”	carbon dioxide;
“concentrate”	a powdery product containing an upgraded mineral content resulting from initial processing of mined ore to remove waste materials. A concentrate is an intermediary product, subject to further processing, such as smelting, to effect recovery of metal;
“crude steel”	steel in the first solid state after melting, suitable for further processing or for sale;
“crusher”	a machine for crushing solids to small grain sizes;

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“deposit”	a body of mineralization containing a sufficient average grade of metal or metals to warrant further exploration and/or development expenditure. A deposit may not have a realistic expectation of being mined, therefore it may not be classified as a resource or a reserve;
“dilution”	the reduction of grade for mined ore due to the inclusion of waste material in the mined ore;
“dm _{tu} ”	dry metric tonne unit;
“DRI”	directly reduced iron, produced from iron ore through a direct reduction process;
“drilling”	the process of making a circular hole in the ground with a drill, which is typically used to obtain a cylindrical sample of ore. Alternatively, blasthole drilling is a technique used to create a hole to house an explosive charge in preparation for blasting a zone of rock;
“exploration”	activity to prove the location, volume and quality of an ore body;
“Fe”	iron;
“Fe ₂ O ₃ ”	iron oxide;
“FeO”	iron (II) oxide;
“FINEX”	a direct smelting process for the production of iron from iron ore;
“flotation”	a process to induce mineral to particles to attach to bubbles of froth and to float, sink, so that the valuable minerals are concentrated and separated from the remaining mineral material;
“footwall”	the rock immediately underlying a mineral deposit;
“FOB”	free on board, a term of sale whereby the seller delivers when the goods pass the ship’s rail at the named port of shipment after which the buyer has to bear all shipping and other costs and risks in respect of loss of or damage to the goods from that point;
“gabbro-diabase”	a hard abrasian-resistant durable igneous rock, often obtain as a mining by-product, used in a wide variety of construction products;
“gangue”	waste rock;
“grade”	the concentration, commonly expressed as percentage or grams per tonne, of useful elements, minerals or their components in any ore or concentrate;

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“hanging wall”	the rock immediately overlying a mineral deposit;
“HBI”	hot briquetted iron, produced from iron ore through a direct reduction process;
“HISmelt”	high intensity smelting, a direct smelting process for the production of iron from iron ore;
“indicated resource”	a mineral resource sampled by drill holes or other procedures at locations too widely spaced to ensure continuity, but close enough to provide a reasonable indication of continuity and where geoscientific data are known with a reasonable level of reliability, as defined by the JORC Code;
“inferred resource”	mineral resource that has geoscientific evidence from drill holes or other sampling procedures such that continuity cannot be predicted with confidence and where geoscientific data may not be known with a reasonable level of reliability, as defined by the JORC Code;
“in-situ”	in its natural position;
“iron”	the silvery-white, lustrous, malleable, ductile, magnetic or magnetizable, metallic element, with atomic number 26, occurring abundantly in combined forms, notably in hematite, limonite, magnetite, and taconite, and alloyed for use in a wide range of important structural materials;
“iron concentrate”	concentrates whose main mineral content (by value) is iron;
“iron ore”	compounds of iron and oxygen (iron oxides) mixed with impurities (gangue) and a mineral that yields metallic iron when heated in the presence of a reductant;
“JORC”	the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy;
“JORC Code”	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the JORC, Australian Institute of Geoscientists and Minerals Council of Australia in September 1999 and revised in December 2004, a widely used and internationally recognized code setting out the minimum standards, recommendations and guidelines for public reporting of exploration results, mineral resources and ore reserves;
“K ₂ O”	the chemical symbol for potassium oxide;
“kg/m”	kilogram(s) per meter;
“km”	kilometer(s);

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“km ² ”	square kilometer(s);
“kt”	thousand tonnes, a metric unit of weight;
“ktpa”	kt per annum;
“kV”	kilovolt;
“kVA”	kilovolt-ampere;
“m”	meter(s);
“m ² ”	square meter(s);
“m ³ ”	cubic meter(s);
“m ³ /min”	cubic meter(s) per minute;
“measured resource”	mineral resource that has been intersected and tested by drill holes or other sampling procedures at locations close enough to confirm continuity and where geoscientific data are reliably known, as defined by the JORC Code;
“mFe”	average magnetic iron grade;
“mine life”	the number of years that a mine is expected to continue operations based on the current mine plan;
“mineral deposits”	a natural occurrence of a useful mineral in a sufficient degree of concentration and size to suggest it may be economically extracted;
“mineral resource(s)” or “resource(s)”	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, as defined in the JORC Code. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge;
“mineralization”	an area with discontinuous distribution belts of mineralization, including the occurrence of deposits, mine sites and alteration of waste rock, as exploration indicators and under control of same geology conditions. It is a key zone for estimation and further planning of exploration of minerals;
“mining dilution”	waste material taken in the process of ore extraction;
“mining loss”	the part of an ore reserve not recovered during the mining process;

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“mining rights”	the rights to mine mineral resources and obtain mineral products in areas where mining activities are licensed;
“mm”	millimeter(s);
“MgO”	magnesium oxide;
“MnO ₂ ”	manganese oxide;
“Mt”	megatonne(s);
“Mtpa”	Mt per annum;
“Na ₂ O”	sodium oxide;
“Oe”	oersted, the unit of magnetizing field in the centimeter-gram-second system, also known as magnetic field strength or intensity;
“open-pit mining”	mining of a deposit from a pit open to surface and usually carried out by stripping overburden materials;
“ore”	mineral bearing rock that can be mined and treated profitably under current or immediately foreseeable economic conditions;
“ore body”	natural mineral accumulations that can be extracted for use under existing economic conditions and using existing extraction techniques;
“ore processing” or “processing”	the process of extracting usable portions of ores using physical and chemical methods;
“ore reserve(s)” or “reserve(s)”	the economically mineable part of a measured and/or indicated mineral resource, as defined by the JORC Code. It includes diluting materials and allowances for losses occurring 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 subdivided into probable and proved;
“P ₂ O ₅ ”	phosphorous pentoxide;
“probable reserves”	the economically mineable part of an indicated, (and in some circumstances, a measured) mineral resource, as defined by the JORC Code. It includes diluting materials and allowances for losses that may occur when the material is mined;

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“proved reserves”	the economically mineable part of a measured mineral resource, as defined by the JORC Code. It includes diluting materials and allowances for losses which may occur when the material is mined;
“recovery rate”	the percentage of valuable mineral resource that is able to be recovered from mining and processing activities;
“S”	sulfur;
“sintering”	a method to cause iron or other powders to be formed into solid objects by heating it below its melting point until the powder agglutinates;
“SiO ₂ ”	silicon dioxide;
“strip ratio”	the ratio of waste rock to iron ore;
“tailing”	waste materials produced after processing ore to extract target minerals;
“TFe”	average total iron grade;
“TiO ₂ ”	titanium dioxide;
“tonne” or “t”	a metric unit of weight;
“tpa”	tonne(s) per annum;
“tpd”	tonne(s) per day;
“US¢ /dm ³ ”	US cents per dry metric tonne unit, the measure used to quote iron ore prices. This measure is multiplied by the iron ore grade of the saleable product to arrive at the price per tonne of material; and
“waste rock”	rock or minerals other than iron ore or other desired deposits removed during mining operations.