
GLOSSARY OF TECHNICAL TERMS

This glossary contains definitions of certain terms used in this prospectus in connection with the Company and its business. Some of these may not correspond to standard industry definitions.

“activated carbon absorption”	an absorption method used in the mineral processing process, where gold ions are absorbed from the leached solution by using activated carbon
“altered” or “alteration”	relating to the change in mineralogical composition of the constituent rocks through physical or chemical means, especially by the action of hydrothermal fluids
“AU9999, AU9995, AU999, AU995”	the international common standard for denoting gold purity adopted by the Shanghai Gold Exchange to conform with international practice, in which, the 9999 gold, 9995 gold traded on the Shanghai Gold Exchange are equivalent to the International First Quality and Second Quality Standard gold bullion respectively, and are equivalent to the 9999 gold, 9995 gold at the London Gold & Silver Trading Association respectively, while the 999 gold and 995 gold denotes gold contents of over 99.9% and 99.5% respectively
“bio-leaching”	leaching of copper minerals assisted by bacteria with subsequent concentration of the leach solution by solvent extraction and recovery of the copper as electrodeposited cathodes by electrowinning
“carbon-in-leach”, “CIL” or “carbon leaching”	a method of leaching used in the mineral processing of gold mines, by which the excavated ores are crushed by crushers into ore slurry with very fine particles, and are then leached with diluted sodium cyanide solution. The metal (gold) in the gold ore is leached out in the form of soluble compounds, which are then absorbed with activated carbon and recovered from the leached solution
“category B reserves”	measured reserves of very high degree of confidence, which are normally the reserves in the first exploration section in excavation of ore deposits
“category C reserves”	indicated reserves of high degree of confidence, which is the basic reserve in the ore deposit layout
“category D reserves”	inferred reserves of lower degree of confidence, which is to be upgraded for supplementing production in the excavation of ore deposits
“category E reserves”	inferred reserves of a minor degree of confidence, which can be taken as future reserves in the procedure of the development of ore deposits

GLOSSARY OF TECHNICAL TERMS

“cathode copper”	copper sheet which is 99.9% and above pure produced through the leaching — extraction — electrowinning processes in copper hydrometallurgy
“chute”	ore transportation shaft used in underground mining, which makes use of gravity to convey ores down to a cavern mine level for further treatment
“coarse granules heap leaching”	treatment of +0.074mm gold ore by stacking it in heaps and spraying an alkaline cyanide solution which percolated through the heap contacting the particles and leaching out the gold which is then separately adsorbed onto activated carbon
“core recovery”	percentage of core recovery from drill holes during drilling
“crusher”	a machine for crushing waste rocks and ores to much smaller grain size
“cutoff”	the grade, quality or thickness, or combination of these, by which the limit of the ore deposit are delineated
“cyanide-free electrolysis and deposition”	a gold refining process which, unlike the cyanide desorption, enables gold to be separated from the activated carbon in the form of ions in solution
“electrowinning”	a process in gold hydrometallurgy applying the electrochemical principle which enables positive ions of metals such as gold in the solution to be attached as gold metal to the cathode
“exploration”	activity to prove the location, volume and quality of an ore body
“fines carbon-in-leach”	treatment of -0.074mm ore fines by the carbon-in-leach process where gold simultaneously leached from the ore in an alkaline cyanide solution and absorbed onto activated carbon in the same vessel
“grade”	the relative amount of an ore mineral within a mineral deposit, commonly expressed as grams per tonne for a gold deposit
“gravity drifting method”	a method which transports ore through ore passes (which often are vertical shafts) from high levels to the ore storage at low level where ores are to be picked up by train or other means

GLOSSARY OF TECHNICAL TERMS

“gravity processing”	a process of mineral processing whereby minerals or impurities of different specific gravities are separated under the law of physics
“heap-leaching”	a method of leaching used in the mineral processing of gold ores, by which the excavated (and/or crushed) ores are piled up to a certain height, and are sprayed with diluted sodium cyanide solution. The metal (gold) in the gold ore is leached out in the form of soluble compounds, which are then absorbed onto activated carbon and recovered from the leached solution
“hot pressure elution and electrowinning”	the chemical process of desorbing gold from activated carbon and its subsequent recovery by electrowinning
“hydrocyclone separator”	equipment used to separate substances from an slurry by the precipitation of particles in the fluid using centrifugal force
“hydrometallurgy”	a type of metallurgical process, different from heat metallurgy, where valuable materials are extracted through chemical reactions of the substances in a solution
“inferred reserves”	an estimation of the quantity of ore resources obtained after outcrop survey, geologic mapping, geophysical and geochemical prospecting, with controls on limited quantity sampling, and relying on the actual survey and assumed parameters and general industrial indices or indices confirmed in the contract, which mainly referring to reserves under category D and E
“inverse distance squared” or “IDS”	IDS is one of the geostatistical methods commonly used in estimating resources/ore reserves. It refers to a specific mathematical approach, which assumes that the average grade for a specific block element of the orebody is a function of the spatial location of the block
“ISO9002:1994”	an international standard for quality assurance during the production, installation and service process which is equivalent to GB/T19002:1994 in the PRC. Enterprises which have adopted the ISO9002:1994 standard to establish their production management and control system may or may not apply for certification

GLOSSARY OF TECHNICAL TERMS

“ISO9001:2000”	an international standard for quality assurance which sets requirements for the quality management system, and is used to manage, control and monitor the ability of the organisation to provide products which meet specified requirements of customers and applicable laws, aiming at enhancing the satisfaction of customers
“low-grade ores”	ores of grades lower than those which can be mined industrially, based on the traditional classification of ore grade
“metallurgy”	the science and art of separating metals and metallic minerals from their ores by mechanical and chemical processes
“micro-differentiation blasting technique”	a commonly used technique in open pit mining operations which involves detonating a large number of blast holes charged with explosives in groups and in sequence with a pre-set time difference. The precision of electric detonators at millisecond levels has made it possible for desirable controlled blasting results to occur
“mineral deposits”	proven surface or underground mineral resources
“mineral resources”	resources of rocks or potential deposits or other valuable minerals, the ore grades, scope and other related nature which can be further classified as measured resources and indicated resources
“non-electric detonating technique”	a technique, which uses detonating cord or NONEL tube to propagate shock wave instead of conventional electric detonators. Non-electric detonating technique is a commonly used blasting technique, which is relatively economic and safe in performance
“non-ferrous metals”	said of metals other than iron, usually the base metals
“open pit” or “open pit mining”	mining of a deposit from a pit open to surface and usually carried out by stripping of overburden materials
“ore”	natural mineral accumulations which can be extracted for use under existing economic conditions and using existing extraction techniques
“ore body delineation”	revision or delineation of the original ore body outline, and recalculation of ore reserves based on additional information obtained from mine development and drilling (tunnels, boreholes, etc) during mine production
“ore grade”	the average content of valuable elements or minerals in a parcel of ore, and indicated in, for example, % or g/t

GLOSSARY OF TECHNICAL TERMS

“ore processing” or “processing”	the process which in general refers to the extraction of usable portions of ores by using physical and chemical methods
“pre-split blasting technique”	a technique widely used in rock slope control and other rock engineering. The technique, which involves the simultaneous detonation of a row of closely spaced, lightly charged holes, is designed to create a clean separation surface between the rock to be blasted and the rock which is to remain. When correctly performed, these blasts can produce very clean faces with a minimum of overbreak and disturbance
“proven and probable reserves”	Category B reserves + Category C reserves + some Category D reserves
“recovery rate”	the percentage of valuable materials derived from an ore
“refining” or “ore refining”	the metallurgical process of refining crude metal products to a pure or very pure end-product
“refractory gold ores”	gold ores which give a relatively low extraction of gold when treated in a conventional process such as leaching in an alkaline cyanide solution, or the extraction of gold from which is difficult
“smelting”	a pyro-metallurgical process of separating metal by fusion from those impurities with which it is chemically combined or physically mixed
“sodium cyanide”	a toxic organic compound which is stable in an alkaline environment, but is easily vaporised under acidic conditions, and is decomposed into non-toxic substances in nature
“spiral classifier”	an mineral processing equipment used to separate coarse particles from the ore slurry using gravity
“standard gold and non-standard gold”	standard gold refers to gold bullion which satisfies both standard content requirements (9999, 9995, 999, 995) and standard weight requirements (50g, 100g, 1kg, 3kg, 12.5kg), while other gold bullion are non-standard gold. Different taxation policies apply to standard gold and non-standard gold pursuant to the policy requirements issued by the relevant state administration departments, including taxation departments, following the commencement of the operations of the Shanghai Gold Exchange

GLOSSARY OF TECHNICAL TERMS

“steep-slope stripping technique”	a method of stripping in open pit mining, the slope angle of which can be up to 25°-45°. By using this mining technique, bench operations are done in turns, instead of full bench operations. It has the advantage of less infrastructure stripping, less infrastructure investment, short construction period, thus lengthening the exposure time of the ultimate slopes, and add to the stability of the slopes of open pit mines
“stripping” or “overburden stripping”	mining and removal of waste material
“stripping ratio”	the ratio of excavating waste materials to the evacuation of ores in open pit mining
“tailings”	the waste materials (gangue) produced by the processing plant after extraction of valuable minerals
“thickener”	an mineral processing equipment used to lower the moisture content of the ore slurry
“underground mining”	well mining, also known as cave mining