

Reference Materials

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Reference Materials

Overview of the Main Group Companies

* As of July 1, 2010

Business lines

Capital (percentage of voting rights held directly or indirectly)

Location

Resources Development

- Kasuga Mines Co., Ltd.**
 Extraction of gold-bearing silicate ore
 ¥10 million (100%)
 Makurazaki, Kagoshima Prefecture
- Nikko Exploration and Development Co., Ltd.**
 Geological surveys, test drilling
 ¥90 million (100%)
 Minato-ku, Tokyo
- Nikko Drilling Co., Ltd.**
 Test drilling
 ¥10 million (100%)
 Minato-ku, Tokyo
- Minera Lumina Copper Chile S.A.**
 Ownership and development of equity interests in deposits at Caserones
 US\$380,001,000 (75%)
 Santiago, Republic of Chile
- Compania Minera Quechua S.A.**
 Ownership and development of equity interests in deposits at Quechua
 S/.173 million (100%)
 Lima, Republic of Peru
- BioSigma S.A.**
 Biotechnology research and development
 ¥31.6 million (33.3%)
 Colina, Republic of Chile

Smelting and Refining

- Pan Pacific Copper Co., Ltd.**
 Manufacturing and sales of refined copper, sulfuric acid, and other copper by-products, metal mining
 ¥28,450 million (66%)
 Minato-ku, Tokyo
- Hibi Kyodo Smelting Co., Ltd.**
 Smelting and refining of refined copper
 ¥4,700 million (63.5%)
 Minato-ku, Tokyo
- Japan Copper Casting Co., Ltd.**
 Manufacturing of mold copper
 ¥200 million (65%)
 Minato-ku, Tokyo
- Nissho Ko-un Co., Ltd.**
 Cargo handling, trucking
 ¥135 million (100%)
 Oita, Oita Prefecture
- Nikko Plant Saganoseki Co., Ltd.**
 Construction and maintenance of facilities by contract
 ¥20 million (100%)
 Oita, Oita Prefecture

- Pan Pacific Copper Shanghai Co., Ltd.**
 Primarily trading of refined copper
 CNY8,277,000 (100%)
 Shanghai, People's Republic of China
- LS-Nikko Copper Co., Ltd.**
 Manufacturing and sales of refined copper, precious and rare metals, and sulfuric acid
 ₩283,204 million (49.9%)
 Ulsan, Republic of Korea
- Changzhou Jinyuan Copper Co., Ltd.**
 Manufacturing and sales of copper wire rods
 CNY282.4 million (61.4%)
 Changzhou, Jiangsu Province, People's Republic of China



- Kurobe Nikko Galva Co., Ltd.**
 Hot-dip zinc-plating
 ¥150 million (93.4%)
 Kurobe, Toyama Prefecture

Electronic Materials

- Nikko Metals USA, Inc.**
 Processing and sales of sputtering targets, purchasing and sales of compound semiconductor materials
 US\$5 million (100%)
 Chandler, Arizona, United States



- Nikko Metals Philippines, Inc.**
 Manufacturing and sales of electro-deposited and treated rolled copper foils, purchase and sales of surface treatment agents
 US\$4 million (100%)
 Binan, Laguna, Republic of the Philippines



- Gould Electronics GmbH**
 Manufacturing and sales of electro-deposited copper foils
 €5,113,000 (100%)
 Eichstetten, Land Baden-Württemberg, Federal Republic of Germany



- Nikko Metals Korea Co., Ltd.**
 Processing and sales of indium tin oxide (ITO) targets
 ₩2,000 million (100%)
 Pyeongtaek-si, Gyeonggi-do, Republic of Korea



- Nikko Metals Hong Kong Ltd.**
 Processing and sales of electro-deposited copper foils
 HK\$17 million (100%)
 Hong Kong S.A.R., People's Republic of China



- Ichinoseki Foil Manufacturing Co., Ltd.**
 Processing copper foil into sheets, bonding copper foil to aluminum sheets
 ¥30 million (100%)
 Ichinoseki, Iwate Prefecture



- Kitaibaraki Precision Co., Ltd.**
 Cutting and grinding of metals and metal alloys
 ¥40 million (50.3%)
 Kitaibaraki, Ibaraki Prefecture

- Nikko Foundry Co., Ltd.**
 Undertaking of manufacturing processes of Isohara Works and Shirogane Works of JX Nippon Mining & Metals by contract
 ¥10 million (100%)
 Kitaibaraki, Ibaraki Prefecture

Business lines
Capital (percentage of voting rights held directly or indirectly)
Location

- **Nikko Coil Center Co., Ltd.**
Slitting processing of fabricated metal products
¥15 million (100%)
Samukawa, Kouza, Kanagawa Prefecture

- **Nippon Mining & Metals (Suzhou) Co., Ltd.**
Manufacturing and sales of precision rolled products and precision pressed products
CNY492 million
Suzhou, Jiangsu Province, People's Republic of China



- **Nikko Fuji Electronics Dongguan Co., Ltd.**
Manufacturing and sales of display components
CNY29,578,000 (100%)
Dongguan, Guangdong Province, People's Republic of China



- **Nikko Fuji Precision (Wuxi) Co., Ltd.**
Manufacturing of precision plated products for electronic components
CNY31,806,000 (100%)
Wuxi, Jiangsu Province, People's Republic of China



- **Nippon Precision Technology (Malaysia) Sdn. Bhd.**
Manufacturing and sales of display components
RM14 million (80.5%)
Kuantan, Pahang Darul Makmur, Republic of Malaysia



- **Nikko Metals Shanghai Co., Ltd.**
Slitting processing and sales of fabricated metal products
CNY42,498,000 (100%)
Shanghai, People's Republic of China



- **Poonsan-Nikko Tin Plating Corp.**
Plating of copper strips
₩2,000 million (40%)
Ulsan, Republic of Korea

- **Nikko Metals Singapore Pte. Ltd.**
Import and sales of various electronic materials
US\$700,000 (100%)
Singapore, Republic of Singapore

- **Sanyu Electronic Industry Co., Ltd.**
Plating of electronic equipment
¥90 million (100%)
Meguro-ku, Tokyo

Recycling and Environmental Services

- **Nikko Environmental Services Co., Ltd.**
Processing of industrial waste
¥200 million (100%)
Hitachi, Ibaraki Prefecture

- **Tomakomai Chemical Co., Ltd.**
Processing of industrial waste
¥100 million (100%)
Tomakomai, Hokkaido

- **Nikko Tsuruga Recycle Co., Ltd.**
Processing of industrial waste
¥50 million (100%)
Tsuruga, Fukui Prefecture

- **Nikko Mikkaichi Recycle Co., Ltd.**
Processing of industrial waste
¥50 million (100%)
Kurobe, Toyama Prefecture

- **Kamine Clean Service Co., Ltd.**
Undertaking of operational management of waste processing facilities by contract
¥10 million (100%)
Hitachi, Ibaraki Prefecture

Other Business

- **Nikko Shoji Co., Ltd.**
Wholesale sales of non-ferrous metals, fabricated metal products, sulfuric acid, and chemical products, manufacturing of surface treatment agents, purchase and sales of copper clad laminates (CCLs)
¥390 million (100%)
Chuo-ku, Tokyo

- **Nippon Marine Co., Ltd.**
Marine transportation services
¥300 million (100%)
Minato-ku, Tokyo

- **Nikko Logistics Partners Co., Ltd.**
Logistics services and consultation
¥100 million (90%)
Minato-ku, Tokyo

- **JX Nikko Art & Craft Co., Ltd.**
Sales of arts and crafts
¥20 million (100%)
Minato-ku, Tokyo

- **Nikko Metals Taiwan Co., Ltd.**
Manufacturing and sales of electronic materials, slitting processing and sales of fabricated metal products, sales of industrial products, collection and sales of metal scrap and high-quality copper scraps
NT\$63.5 million (100%)
Bade, Tao-Yuan, Taiwan



- **Materials Service Complex Malaysia Sdn. Bhd.**
Slitting processing and sales of metal materials and fabricated metal products, collection, sorting, and sales of metal scrap, sales of chemical products, electronic components
RM30 million (100%)
Gelang Patah, Johor, Republic of Malaysia



- **Nikko Metals Trading & Services (Shanghai) Co., Ltd.**
Support of back-office operations, collection of market-related information about People's Republic of China
CNY2 million (100%)
Shanghai, People's Republic of China

Reference
Materials

Glossary

Term	Explanation	Page(s)
3R	Initial letters of "Reduce, Reuse, and Recycle." One of the basic concepts to create a recycling-oriented society.	P79
alunite	A sulfate mineral, and a hydrated cobalt sulfate. Its chemical composition is $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$.	P73
anode	A positive plate for refining with concentrations of trace quantities of precious metals such as gold and silver; made of copper of over 99% purity, after separation and removal of impurities by smelting copper concentrate.	P47
B-to-B	An abbreviation for business to business, meaning business transactions between companies.	P18
Basel Convention	The official name is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal; the Basel Convention sets forth an international framework and procedures regarding the regulation of certain wastes that are transported beyond national borders.	P60
biodiversity	The variation of life forms within a given ecosystem, biome, or on the earth. Covering biodiversities of genes, species, and ecosystems of a region.	P3, 6, 15, 20, 24, 44, 60, 61, 62, 72, 73, 94, 95
biomass	Resources that originate from living organisms and can be reused as energy.	P32
bio-mining	A type of heap leaching, to leach objective metals with the use of microorganisms.	P11, 69
blister copper	A semi-manufactured copper with an approximate copper content of 99% or more after removing sulfur, iron, and other impurities in a process using a flash furnace and a converter.	P47
BOD	Biochemical oxygen demand: an index of water quality indicating the amount of oxygen needed to decompose organic substances in the water by the activities of microorganisms; it is a typical index used for measuring river pollution.	P66
bornite	A copper sulfide ore. Its chemical composition is Cu_5FeS_4 .	P32
caisson filler	A filler to be poured into caissons, the hollow concrete boxes used for building breakwaters and other underwater structures, to prevent them from floating up by buoyancy.	P64
carbon brushes	Components that conduct electricity while sliding against the rotating components of motors or electric generators.	P50
CCLs	Copper clad laminates: laminates with copper foil used for printed circuit boards.	P100
chalcopyrite	A typical copper sulfide ore containing copper, iron, and sulfur. Its chemical composition is CuFeS_2 .	P32
chlorite	A clay mineral. A secondary mineral produced when biotite, amphibole, or pyroxene alters. Normally found in small green flakes in igneous rock, metamorphic rock, and sedimentary rock.	P73
COD	Chemical oxygen demand: an index of water quality indicating the amount of oxygen needed to decompose organic substances that are susceptible to oxidation; it is a typical index used for measuring ocean and lake pollution by organic substances.	P66
compound semiconductor	A semiconductor that consists of two or more elements.	P49, 99
converter	An inclined-rotation furnace for converting sulfides, chiefly containing copper, which are a semi-manufactured product in the copper smelting process that is called matte, into blister copper.	P21, 27, 47, 61
converter slag	Compound ferrous, silicate, and other oxides generated during the converter process.	P47
copper concentrate	20–40% purity raw copper after concentration and separation of copper through breaking, crushing, and floatation processing of copper ore.	P11, 44, 48, 51, 64
copper matte	An intermediate product in the copper smelting and refining process, sulfides containing chiefly copper.	P47
copper oxide ore	Copper ore that is found in copper deposit zones, which have been oxidized due to weathering and/or by surface water.	P44
copper slag	Compound ferrous, silicate, and other oxides generated during the flash furnace process.	P47, 69
copper slag concentrate	Powdered materials with high-copper content, obtained from the treatment of converter slag.	P47
Corson alloy	A precipitation-hardening-type copper-nickel-silicon alloy that precipitates Ni_2Si . Currently, it is the most actively developed alloy category because it combines comparatively high conductivity and strength with stress relaxation properties and bend-formability.	P55
defined contribution corporate pension plan	A pension plan in which the amount an employee pays into the plan while he or she is working is fixed; although, after retirement the amount the employee receive as a pension benefit is not fixed as it reflects any losses or gains recognized as a result of fund management.	P56
dust collector	Equipment for separating and collecting dust contained in the air flow.	P47, 66
EICC	Electronics Industry Code of Conduct: a guideline instituted in 2004 with the aim of ensuring corporate social responsibility in the supply chain of the electronics industry.	P79

Term	Explanation	Page(s)
EITI	Extractive Industries Transparency Initiative: An initiative to increase the transparency of capital flows in the extractive industries engaged in the development of mining, oil, coal, and other natural resources. Former Prime Minister of the United Kingdom Tony Blair advocated this initiative at the Johannesburg Summit held in 2002.	P38, 97
electroless plating	A plating method that precipitates a uniform thin metal film without using electricity.	P50, 92
ESG information	Non-financial information that relates to the environment, society, and corporate governance. In recent years, awareness of the importance of this information has grown to project future corporate value.	P19
extraction percentage	The ratio of intended products to the content, or more specifically the ratio of the production volume in the smelting process to the metal content in the copper concentrate or in recycled materials.	P44, 48, 59
flash furnace	A furnace that uses oxidation and the exothermic reaction of ores themselves to melt and separate copper and iron in the form of matte and slag while recovering sulfur in the form of sulfur oxide gas.	P26, 47, 48, 61, 62
FPD	Flat panel display: a planar display of liquid crystal, plasma, and others.	P49, 55, 92
Sustainability Reporting Guidelines 2006	Version 3 of the GRI (G3) published in October 2006: G3 particularly encourages a company to determine what information to disclose by taking into account the materiality of each piece of information, as well as a boundary to be reported by considering control and significant influence to entities that could be involved in the boundary.	P1, 4, 39
genome analysis	A comprehensive analysis of the genetic information, or genomes, of living organisms.	P32
GHS	Globally Harmonized System of Classification and Labeling of Chemicals: a system that classifies chemicals by the type of hazard and proposes harmonized hazard communication elements.	P66
Global Compact	A program regarding autonomous code of conducts of companies, which was officially launched at the United Nations Headquarters in New York in 2000. Participating companies in the world adhere to the 10 principles of the Global Compact with respect to human rights, labor, the environment, and anti-corruption.	P4, 14, 18, 19, 20, 38, 80, 97
green purchasing	Purchase of products and services with the smallest possible environmental impact, with reference to suppliers dedicated to reducing the environmental impact.	P12, 22, 38, 60
GRI	Global Reporting Initiative: an institution established in 1997 by the United Nations Environment Program (UNEP), Coalition for Environment Responsible Economies (CERES), and other entities, for the purpose of developing and disseminating globally applicable sustainability reporting guidelines.	P1, 2, 4, 17, 23, 39
GRI Mining and Metals Sector Supplement	A guideline supplementing the G3 Guidelines with issues that the G3 does not cover.	P1, 4
high-quality copper scraps	A collective term for high-quality copper and copper alloy scraps.	P64, 69, 100
hydro-metallurgy	A smelting process to produce objective metals by dissolving and refining ore with the use of chemicals, such as sulfuric acid, at ordinary temperatures.	P11, 31, 69
ICA	International Copper Association	P94
ICMM	International Council on Mining & Metals	P1, 4, 12, 52, 94, 96, 97
intensity	The quantity of materials, labor, power, and other elements required for a fixed volume of industrial product; for example, the intensity of energy refers to the energy consumption necessary to produce or treat one metric ton.	P21, 25, 26, 45, 60, 61, 62, 63, 65
iron concentrate	Powdered materials with high-ferrous content, obtained from the treatment of converter slag.	P47, 64, 69
ISO	International Organization for Standardization: a non-profit organization in the civic sector established to draft international standards that apply to industrial fields, except for the field of electrical equipment; its front office is located in Amsterdam, the Netherlands.	P16, 21, 22, 69, 75, 84
ISO 9001	An international standard established by the ISO (see above). An international standard, which provides quality control guidelines implemented by the International Organization for Standardization, with the aim of improving customer satisfaction.	P75, 76
ISO 14001	An international standard established by the ISO (see above). It stipulates the requirements for environmental management systems with the aim of attenuating the environmental impact and risks caused by the activities, products, and services of an organization, and preventing their occurrence.	P40, 44, 60, 70
ISO/TS 16949	A standard that adds specific requirements in the automobile industry in addition to ISO 9001, an international standard for quality control.	P22, 76
ITO	Indium tin oxide: a kind of transparent, conductive material used in FPDs.	P92, 99
kaolin	A clay mineral of an aluminum hydrous silicate.	P22

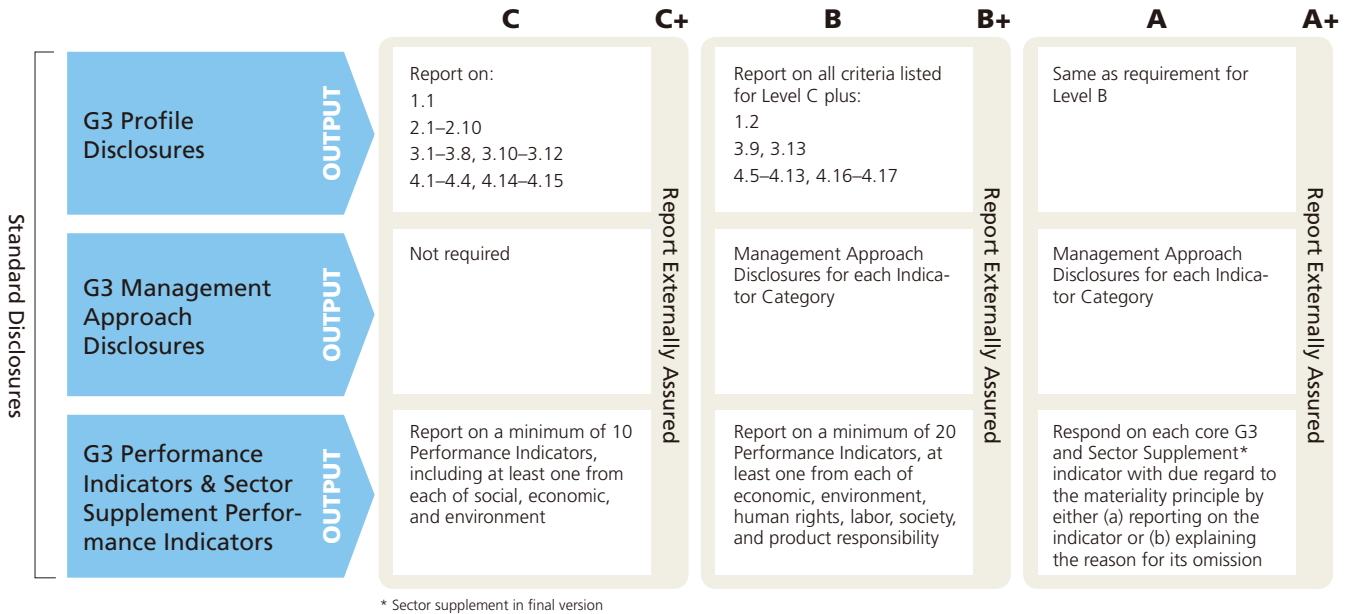
Glossary

Term	Explanation	Page(s)
LME	London Metal Exchange: Established in 1877, the world's largest futures exchange specializing in non-ferrous metals, listing seven metals including copper, nickel, lead, zinc, and aluminum.	P55
light-emitting and photo diode	A collective term for a light-emitting device, which converts electrical energy into light energy, and a light-receiving device, which works reversely.	P49
lockout	A countermeasure taken by management in response to a labor dispute, including a strike that a labor union calls. Management temporarily shuts down offices and plants to lock out workers participating in the labor dispute to reject wage payment.	P82
materials stewardship	The range of activities required to ensure the optimal and appropriate use of minerals and metals in society. It is a life cycle based concept and includes activities and actions to improve both the upstream processes that support the production of the material as well as the downstream product(s) that it goes into.	P8, 24, 30, 51, 52
metabolome analysis	A comprehensive analysis of molecules produced by cell activity.	P32
microarray	A material or a technology used in a simultaneous examination or experimental trial to fixed multiple subjects.	P32
MSDS	Material Safety Data Sheet: a data sheet supplied by the chemical substance supplier to provide information on the chemical substances used with the materials, to ensure the health and safety of the users who handle these chemical substances.	P66, 77
neutralized slag	Waste produced by a neutralization reaction in the smelting process.	P64
N-Chlo Process	Nikko Chloride Process: a hydro-metallurgical technology that efficiently extracts copper and gold, silver, and other precious metals from low-grade copper concentrates.	P53
Notable COP	Of Communication on Progress—COP, which should be submitted by companies affirming the 10 principles of the United Nations Global Compact—the Global Compact Office subsequently recognizes a notable one.	P18
OHSAS	Occupational Health and Safety Assessment Specification: an international standard that stipulates requirements for health and safety management systems, with the aim to improve risk management systems and the performance of the systems.	P21, 22, 40, 87
oilless bearing	A bearing made of porous sintered metal that impregnates itself with lubricant oil. Heat generated by shaft rotation transudes the oil into the gaps between bearings to lubricate them.	P50
PDCA cycle	Processes of “plan,” “do,” “check,” and “act” are implemented in this order. The final process, “act,” in which the contents of the “plan” process are determined to be either continued, revised, or rescinded based on the results of the “check” process and subsequently turned into the next “plan” process. The PDCA cycle is a management method to continuously improve quality and business through repetition of this process.	P4, 11, 16, 39, 41, 65, 76
permanent cathode method	A method for producing refined copper in which stainless steel plates are used as the cathodes in the refining process, to improve current efficiency in comparison to conventional processes and produce higher-quality refined copper.	P34
phosphor bronze	A copper alloy added with tin and a minute amount of phosphorus.	P8, 49, 55
powder metallurgy	A method to produce metal products by pressurizing, casting, and sintering metal powder.	P53, 94
precipitate	Concentrates of gold, silver, and other value-bearing metals that precipitate at the bottom of refining tanks during copper refining.	P47, 69
primary copper sulfide ore	A copper sulfate ore, which is largely a copper pyrite.	P31, 32, 44
PRTR	Pollutant Release and Transfer Register: a system under which information on the release of pollutants into the air, water, and soil, as well as transfers of waste and pollutants, is reported to a nation, which compiles the information and publishes the results.	P66
ratio of equity entitlement copper mine production	The ratio of copper concentrate obtained from sources where the Group owns mining rights to its total copper concentrate requirements for its smelting and refining business.	P43
REACH	A system of registration requiring all manufacturers and importers of chemicals in quantities of 1 ton or more per year to identify and manage the risks related to the substances they manufacture and market.	P22, 67
recycled resources	Waste and other materials containing copper, gold, silver, and other value-bearing metals, which can be recycled to be used as raw materials.	P63, 64, 68
refined copper	Copper of over 99.99% purity after refining with an anode as a positive plate.	P32, 44, 45, 47, 55, 61, 62, 63, 65, 68, 99
RoHS directive	A directive of the EU regarding restrictions on the use of certain hazardous substances in electrical and electronic equipment; the six restricted hazardous substances include lead, cadmium, mercury, chromium hexavalent, and two brominated flame retardants (PBB and PBDE).	P16, 77
sandblasting material	An abrasive used to repair or remove rust from vessels in the shipping industry. With the use of compressed air, centrifugal force, or other such force, it is sprayed for abrasion.	P64

Term	Explanation	Page(s)
secondary copper sulfide ore	Copper ore, typified by chalcocite, formed through a reaction between copper leached in oxidized zones and underlying primary copper sulfide ore, after preparation of a copper deposit.	P44
sericite	A clay mineral of silicate.	P73
shot	A granulated metal product.	P64
silicate ore	Ore that consists of quartz and other silicates, containing a minute amount of gold.	P64, 99
silver and gold slag	Industrial waste that contains gold and silver.	P64, 69
slag	Compound ferrous, silicate, and other oxides generated by various production processes.	P64
slag cleaning furnace	A furnace that retains slag generated from a flash furnace for recovering copper from slag.	P21, 47
slitting	Longitudinally slitting rolled copper, copper alloy, and special steel strips, as well as electro-deposited copper foil, by the product width.	P100
SPC	Statistical Process Control: A statistical method to evaluate performance of production lines and project a significant deviation on occurrences of rejected products.	P76
spectral interference	A phenomenon in which measurements are impeded due to the incomplete isolation of the radiation emitted or absorbed by the target analyte from other radiation detected by the instrument.	P54
sputtering	A method in which inert gas ions collide with metal and other targets to form an even high-quality thin film consisting of ejected metal and other substances on the surface of the object.	P49, 77, 78, 79, 92, 99
SQC	Statistical quality control: a statistical method to control product quality with variability of qualities of entire manufacturing lines, including raw materials, equipment and facilities, operations and finished products, rather than with qualities of individual products.	P76
sulfuric acid inversion rate	The ratio of sulfur dioxide (SO ₂) generated in the smelting process, which is inverted to sulfur trioxide (SO ₃) by the actions of catalysts.	P65
supply chain	The process from the production of raw materials through to the delivery to consumers. In recent years, as a facet of corporate social responsibility, companies hold an increasing responsibility for the entire supply chain of each of their products.	P3, 16, 30
SX-EW	Solvent extraction/electrowinning process: one of the copper production methods; copper is refined through a refining process after extracting copper ions from the leaching solution obtained by leaching out the copper element from mined copper ores using diluted sulfuric acid.	P44
systematic biology	An academic field in which the understanding of life phenomena as systems is pursued by applying the approaches of system engineering as well as analytical methods.	P32
target	A material put in a sputtering machine to form a thin film; used in semiconductors, FPDs, and other applications.	P8, 49, 55, 76, 77, 78, 79, 92, 99
test drilling	The means of boring holes into the ground in order to investigate soil and rock properties, and identify water sources and oil-bearing stratum.	P99
titanium copper	A copper alloy with titanium added, which is often used for springs due to its comparable mechanical strength with that of beryllium copper.	P8, 49
total material input	Total amount of recycled resources and primary raw materials such as copper concentrate, input into the smelting process.	P63
Type 1 Designated Energy Management Factory	A production plant consuming more than 3,000kl of crude oil equivalent per annum as stipulated by the Act on the Rational Use of Energy (energy-saving law).	P1, 60
UBM	Under Bump Metallurgy: underlying metals of solder bumps, which are solder balls used to bond flip chips and substrates.	P50, 92
upstream / downstream expenses	Expenses for reducing the environmental impact generated in the upstream or downstream stages of a certain business activity.	P69
urban mine	A collective term that denotes all the metals able to be recycled and classified from among the non-ferrous metals that were originally extracted from natural ores and made into various forms after going through smelting and refining processes and that were once used in human economic activities.	P2, 4, 11, 13, 24, 54
visualization	An initiative to clarify problems in a company's operations by examining them based on numerical results for objective assessments.	P33
wafer	A thin plate cut from a single semiconductor crystal, used as a substrate of integral circuits.	P49, 50, 92
waste anode	Anode after use in copper refining process.	P47, 69
yield	The ratio of non-defective products to all products that have been manufactured; the fewer the defective products, the higher the yield rate.	P21, 34, 59, 69
zero emission	A structure where no waste subject to landfill disposal is discharged.	P6, 11, 52, 63

GRI Content Index

This report has an A+ application level as defined by the G3 Guidelines of the Global Reporting Initiative.



Number	Item	Content to be included	Page(s)
Strategy and Analysis			
1.1		Statement from the most senior decision-maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy	P3–4
1.2		Description of key impacts, risks, and opportunities	P23–32
Organizational Profile			
2.1		Name of the organization	P7
2.2		Primary brands, products, and/or services	P8
2.3		Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	P2, 7
2.4		Location of organization's headquarters	P7
2.5		Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	P7, 9
2.6		Nature of ownership and legal form	P7
2.7		Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)	P7–8, 56
2.8		Scale of the reporting organization	P7, 55, 68
2.9		Significant changes during the reporting period regarding size, structure, or ownership including: <ul style="list-style-type: none"> The location of, or changes in operations, including facility openings, closings, and expansions; and Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) 	P43 P7
2.10		Awards received in the reporting period	P77, 93
Report Parameters			
3.1	Report Profile	Reporting period (e.g., fiscal/calendar year) for information provided	P1
3.2		Date of most recent previous report (if any)	P1
3.3		Reporting cycle (annual, biennial, etc.)	P1
3.4		Contact point for questions regarding the report or its contents	Back cover

Number	Item	Content to be included	Page(s)
3.5	Report Scope and Boundary	Process for defining report content	P1, 23
3.6		Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers)	P1–2
3.7		State any specific limitations on the scope or boundary of the report	P1
3.8		Basis for reporting on joint ventures, subsidiaries, leased facilities, out-sourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	P1
3.9		Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report	P60–62, 64–67, 69, 79, 80–81, 86
3.10		Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods)	P60
3.11		Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	Not applicable
3.12	GRI Content Index	Table identifying the location of the Standard Disclosures in the report	P105–109
3.13	Assurance	Policy and current practice with regard to seeking external assurance for the report	P110
Governance, Commitments, and Engagement			
4.1	Governance	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight	P37
4.2		Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement)	P37
4.3		For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members	P37
4.4		Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	P37, 82
4.5		Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance)	P38
4.6		Processes in place for the highest governance body to ensure conflicts of interest are avoided	Based on laws and statutory regulations and the articles of incorporation, for transactions in which there is a conflict of interest between a director and the Company, approval is sought from the General Meeting of Shareholders, which in the Company's case is JX Holdings, Inc.
4.7		Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics	This has not been included because the Company does not have a process in writing for electing directors.
4.8		Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	P5–6
4.9		Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	P24, 38–39
4.10		Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	P38–39
4.11		Commitments to External Initiatives	Explanation of whether and how the precautionary approach or principle is addressed by the organization
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses		P4, 80, 96–97
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations		P88, 94
4.14	Stakeholder Engagement	List of stakeholder groups engaged by the organization	P12
4.15		Basis for identification and selection of stakeholders with whom to engage	P12
4.16		Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	P12–14, 17–20
4.17		Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	P13–15, 17–20

GRI Content Index

Number	Item	Content to be included	Page(s)
Economic			
Disclosure on Management Approach			P5, 11, 43–56
EC1	Economic Performance	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	P56
EC2		Financial implications and other risks and opportunities for the organization's activities due to climate change	P24–25
EC3		Coverage of the organization's defined benefit plan obligations	P56
EC4		Significant financial assistance received from government	P56
EC6	Market Presence	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	Not applicable. The Company consigns purchasing to JX Nippon Procurement Corporation. Therefore, the purchasing policy of JX Nippon Procurement Corporation is used.
EC7		Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	P46, 80
EC8	Indirect Economic Impacts	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	P91
Environment			
Disclosure on Management Approach			P5–6, 11, 59–61, 63, 65, 70
EN1	Materials	Materials used by weight or volume	P64
EN2		Percentage of materials used that are recycled input materials	P64
EN3	Energy	Direct energy consumption by primary energy source	P61
EN4		Indirect energy consumption by primary energy source	P61
EN8	Water	Total water withdrawal by source	P63
EN11	Biodiversity	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	P35, 90
EN12		Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	P44–45
EN13		Habitats protected or restored	Not applicable*
EN14		Strategies, current actions, and future plans for managing impacts on biodiversity	As there are no operating sites in areas judged to possess high values of biodiversity, there are currently no strategies for managing the effects on biodiversity.
EN16	Emissions, Effluents, and Waste	Total direct and indirect greenhouse gas emissions by weight	P62
EN17		Other relevant indirect greenhouse gas emissions by weight	P62
EN19		Emissions of ozone-depleting substances by weight	Not applicable
EN20		NOx, SOx, and other significant air emissions by type and weight	P65
EN21		Total water discharge by quality and destination	P63
EN22		Total weight of waste by type and disposal method	P64
EN23		Total number and volume of significant spills	P71
EN26	Products and Services	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	P50
EN27		Percentage of products sold and their packaging materials that are reclaimed by category	Not applicable
EN28	Compliance	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	P71
EN30	Overall	Total environmental protection expenditures and investments by type	P69
MM1	Biodiversity	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated(Land owned: Land owned or leased by the Company)(Land use: Production activities or the extraction of specific materials)	Not applicable*
MM2		The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	P44–45
MM3	Emissions, Effluents, and Waste	Total amounts of overburden, rock, tailings, and sludges and their associated risks	Not applicable*

Number	Item	Content to be included	Page(s)
Labor Practices & Decent Work			
Disclosure on Management Approach			P6, 11, 79, 81–83, 85–87
LA1	Employment	Total workforce by employment type, employment contract, and region	P79–80
LA2		Total number and rate of employee turnover by age group, gender, and region	P81
LA4	Labor/Management Relations	Percentage of employees covered by collective bargaining agreements	P82
LA5		Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	P82
LA7	Occupational Health and Safety	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region	P86
LA8		Education, training, counseling, prevention, and risk-control programs in place to assist workforce members and their families or community members regarding serious diseases	P41, 85
LA10	Training and Education	Average hours of training per year per employee by employee category	P83
LA11		Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	P83–85
LA13	Diversity and Equal Opportunity	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	P80, 82
LA14		Ratio of basic salary of men to women by employee category	P81
MM4	Labor/Management Relations	Number of strikes and lockouts exceeding one week's duration, by country	P82
Human Rights			
Disclosure on Management Approach			P6, 11, 80
HR1	Investment and Procurement Practices	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	There were no applicable investment agreements.
HR2		Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	The Company consigns purchasing to JX Nippon Procurement Corporation. Therefore, the purchasing policy of JX Nippon Procurement Corporation is used.
HR4	Non-discrimination	Total number of incidents of discrimination and actions taken	P40
HR5	Freedom of Association and Collective Bargaining	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	For overseas subsidiaries, the Company conducts operations in accordance with the labor laws and statutory regulations of the respective countries and does not restrict collective bargaining. For Japan, please see page 82.
HR6	Child Labor	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	P80
HR7	Forced and Compulsory Labor	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of forced or compulsory labor	P80
MM5	Indigenous Rights	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities	There are no operating sites in or adjacent to Indigenous Peoples' territories.
Society			
Disclosure on Management Approach			P5–6, 11, 40, 88, 90
SO1	Community	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	P44–46, 88–92
SO2	Corruption	Percentage and total number of business units analyzed for risks related to corruption	P40
SO3		Percentage of employees trained in organization's anti-corruption policies and procedures	P40
SO4		Actions taken in response to incidents of corruption	Not applicable
SO5	Public Policy	Public policy positions and participation in public policy development and lobbying	P96–97
SO8	Compliance	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	There were no fines or non-monetary sanctions for non-compliance with laws and regulations.

GRI Content Index

Number	Item	Content to be included	Page(s)
MM6	Community	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples	There were no significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.
MM7		The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes	There were no significant disputes relating to land use, or the customary rights of local communities and Indigenous Peoples.
MM8	Artisanal and Small-scale Mining	Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	There are no operating sites on, or adjacent to, ASM sites.
MM9	Resettlement	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	There were no operating sites where resettlements took place.
MM10	Closure Planning	Number and percentage of operations with closure plans	Not applicable (Plans for closure of the Caserones Copper Deposit and a molybdenum deposit are currently being prepared.)
Product Responsibility			
Disclosure on Management Approach			P5-6, 11, 75-77
PR1	Customer Health and Safety	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	P77
PR3	Product and Service Labeling	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	P77
PR6	Marketing Communications	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	Promoted as an issue of compliance relating to business activities in accordance with the Compliance Guidebook.
PR9	Compliance	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	P77
MM11	Materials Stewardship	Programs and progress relating to materials stewardship	P29-30, 52

* For the Caserones Copper Deposit development project, in February 2010 it was concluded that the project promised to be economically viable and an environmental license was obtained from Chile's Region III environmental committee. Therefore, the Company has decided to proceed with development. Extraction is scheduled to begin in 2013.

Independent Assurance Report



Independent Assurance Report

To the President and Chief Executive Officer of JX Nippon Mining & Metals Corporation

Purpose and Scope

We were engaged by JX Nippon Mining & Metals Corporation (the "Company") to provide limited assurance on its Sustainability Report 2010 (the "Report") for the fiscal year ended March 31, 2010. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether:

- the environmental, social and economic performance indicators and environmental accounting indicators (the "Indicators") for the period from April 1, 2009 to March 31, 2010 included in the Report are prepared, in all material respects, in accordance with the Company's reporting criteria;
- the Company's self-declaration on the Global Reporting Initiative ("the GRI") application level conforms to the application level criteria stipulated by the GRI;
- the Company's policies are aligned to the International Council on Mining and Metals ("ICMM")'s 10 Sustainable Development ("SD") Principles as described on page 96;
- the Company has identified and prioritized its material issues as described on page 23;
- the Company has approached and managed its material issues as described on page 24.

The content of the Report is the responsibility of the Company's management. Our responsibility is to carry out a limited assurance engagement and to express our conclusion based on the work performed.

Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Sustainability Reporting Guidelines 2006 of the Global Reporting Initiative. We used these criteria to evaluate the Indicators. For the GRI application level, we used the criteria stipulated by the GRI.

Procedures Performed

We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines of Sustainability Information Assurance' of the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS").

The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report.
- With respect to the Indicators,
 - reviews of the Company's reporting criteria,
 - obtaining an understanding of the systems used to generate, aggregate and report the Indicators, and of the internal controls at corporate and site level,
 - analytical reviews of the Indicators aggregated at corporate level,
 - examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also a recalculation of the Indicators,
 - visit to the Company's Isohara Works, and
 - evaluating the overall statement in which the Indicators are expressed.
- Evaluating the Company's self-declared GRI application level against the application level criteria.
- An assessment of the alignment of the Company's policies to ICMM's 10 SD Principles through documentation reviews and interviews.
- Interviews and documentation reviews of the Company's process of identifying and prioritizing its material issues.
- Interviews and documentation reviews of the Company's approach to and management of its material issues.

Conclusion

Based on the assurance procedures conducted by the Company, no serious issues such as those listed below were found in the Sustainability Report:

- the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report;
- the Company's self-declaration on the GRI application level does not conform to the application level criteria;
- the Company's policies are not aligned to the ICMM's 10 SD Principles as described on page 96;
- the Company has not identified and prioritized its material issues as described on page 23; and
- the Company has not approached and managed its material issues as described on page 24.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.

Tokyo, Japan

November 19, 2010

Reference
Materials