

Responsible Minerals Report

100%获取为三星电机生产的产品(MLCC, Camera module, PCB 等)供应原材料的 第一轮合作方的CMRT(Conflict Minerals Reporting Template)、EMRT(Extended Minerals Reporting Template), 通过调查信息信赖度及认证冶炼厂使用研讨、Risk分析, 防止问题发生, 进行改善活动, 在合作方注册阶段有 Risk时, 则进行交易注册限制等规制应对活动。

三星电机通过这些活动, 通过 2022年度 100% 认证冶炼厂, 确认 3TG(Tantalum, tin, tungsten, gold) 及钴, 云母供应, 为实现供应链内使用冶炼厂无 Risk 地持续供应, 做出了如下积极的努力。

- 所有冶炼厂都将使用认证冶炼厂, 未认证的冶炼厂将立即引导进行 RMAP(Responsible Minerals Assurance Process) 认证, 对供应链内的责任矿物进行管理, 以确保取得认证 or 禁止使用。
- 通过供应链实地调查及教育, 三星电机将会继续努力, 使合作方能够自发地应对责任矿物规制。
- 同时, 三星电机不仅关注非正常采挖的矿物, 还会关注人权侵害、环境破坏等问题, 尽全力让合作方也能负责任地进行矿物调度。

※ 争议矿物调查结果

100%获取为三星电机生产的产品(MLCC, Camera module, PCB 等)供应原材料的第一轮合作方的CMRT(Conflict Minerals Reporting Template)、EMRT(Extended Minerals Reporting Template), 通过调查信息信赖度及认证冶炼厂使用研讨、Risk分析, 防止问题发生, 进行改善活动, 在合作方注册阶段有 Risk时, 则通过进行交易注册限制等规制应对活动, 得出如下结果。

1) 供应链内各种矿物使用冶炼厂现状

(2022年末标准, 单位: 处)

分类	认证冶炼厂	认证中冶炼厂	合计	认证 (%)
Tantalum	36	-	36	100%
Tin	81	-	81	100%
Tungsten	50	-	50	100%
Gold	173	-	173	100%
Cobalt	59	-	59	100%
Mica	1	-	1	100%
Total	400	-	400	100%

2) 各年度使用冶炼厂现状

分类	认证冶炼厂	认证中冶炼厂	合计	认证 (%)
2022	400	-	400	100%
2021	269	-	269	100%
2020	250	-	250	100%
2019	228	-	228	100%
2018	166	-	166	100%

本公司供应链内使用的冶炼厂共有 400家, 100% 都使用了认证冶炼厂。(不含未认证冶炼厂)

附件：使用冶炼厂 List (认证冶炼厂及精炼厂)

矿物名称	冶炼厂名称	国家
Tungsten	A.L.M.T. Corp.	JAPAN
Tungsten	Kennametal Huntsville	UNITED STATES OF AMERICA
Tungsten	Guangdong Xianglu Tungsten Co., Ltd.	CHINA
Tungsten	Chongyi Zhangyuan Tungsten Co., Ltd.	CHINA
Tungsten	CNMC (Guangxi) PGMA Co., Ltd.	CHINA
Tungsten	Global Tungsten & Powders Corp.	UNITED STATES OF AMERICA
Tungsten	Hunan Chenzhou Mining Co., Ltd.	CHINA
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA
Tungsten	Japan New Metals Co., Ltd.	JAPAN
Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA
Tungsten	Kennametal Fallon	UNITED STATES OF AMERICA
Tungsten	Wolfram Bergbau und Hutten AG	AUSTRIA
Tungsten	Xiamen Tungsten Co., Ltd.	CHINA
Tungsten	Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.	CHINA
Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA
Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA
Tungsten	Jiangxi Xincheng Tungsten Industry Co., Ltd.	CHINA
Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA
Tungsten	Malipo Haiyu Tungsten Co., Ltd.	CHINA
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA
Tungsten	Asia Tungsten Products Vietnam Ltd.	VIET NAM
Tungsten	Chenzhou Diamond Tungsten Products Co., Ltd.	CHINA
Tungsten	H.C. Starck Tungsten GmbH	GERMANY
Tungsten	TANIOBIS Smelting GmbH & Co. KG	GERMANY
Tungsten	Masan High-Tech Materials	VIET NAM
Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA
Tungsten	Niagara Refining LLC	UNITED STATES OF AMERICA
Tungsten	China Molybdenum Tungsten Co., Ltd.	CHINA
Tungsten	Ganzhou Haichuang Tungsten Co., Ltd.	CHINA
Tungsten	Hydrometallurg, JSC	RUSSIAN FEDERATION
Tungsten	Unecha Refractory metals plant	RUSSIAN FEDERATION
Tungsten	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES
Tungsten	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA
Tungsten	ACL Metais Eireli	BRAZIL
Tungsten	Moliren Ltd.	RUSSIAN FEDERATION

矿物名称	冶炼厂名称	国家
Tungsten	KGETS Co., Ltd.	KOREA, REPUBLIC OF
Tungsten	Fujian Ganmin RareMetal Co., Ltd.	CHINA
Tungsten	Lianyou Metals Co., Ltd.	TAIWAN, PROVINCE OF CHINA
Tungsten	JSC "Kirovgrad Hard Alloys Plant"	RUSSIAN FEDERATION
Tungsten	NPP Tyazhmetprom LLC	RUSSIAN FEDERATION
Tungsten	Jingmen Dewei GEM Tungsten Resources Recycling Co., Ltd.	CHINA
Tungsten	Albasteel Industria e Comercio de Ligas Para Fundicao Ltd.	BRAZIL
Tungsten	Cronimet Brasil Ltda	BRAZIL
Tungsten	Artek LLC	RUSSIAN FEDERATION
Tungsten	Fujian Xinlu Tungsten	CHINA
Tungsten	OOO "Technolom" 2	RUSSIAN FEDERATION
Tungsten	OOO "Technolom" 1	RUSSIAN FEDERATION
Tungsten	LLC Vostok	RUSSIAN FEDERATION
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA
Tin	Alpha	UNITED STATES OF AMERICA
Tin	PT Aries Kencana Sejahtera	INDONESIA
Tin	Dowa	JAPAN
Tin	EM Vinto	BOLIVIA (PLURINATIONAL STATE OF)
Tin	Estanho de Rondonia S.A.	BRAZIL
Tin	Fenix Metals	POLAND
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA
Tin	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA
Tin	Gejiu Kai Meng Industry and Trade LLC	CHINA
Tin	China Tin Group Co., Ltd.	CHINA
Tin	Malaysia Smelting Corporation (MSC)	MALAYSIA
Tin	Metallic Resources, Inc.	UNITED STATES OF AMERICA
Tin	Mineracao Taboca S.A.	BRAZIL
Tin	Minsur	PERU
Tin	Mitsubishi Materials Corporation	JAPAN
Tin	Jiangxi New Nanshan Technology Ltd.	CHINA
Tin	Novosibirsk Processing Plant Ltd.	RUSSIAN FEDERATION
Tin	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND
Tin	Operaciones Metalurgicas S.A.	BOLIVIA (PLURINATIONAL STATE OF)
Tin	PT Artha Cipta Langgeng	INDONESIA
Tin	PT Babel Inti Perkasa	INDONESIA
Tin	PT Babel Surya Alam Lestari	INDONESIA
Tin	PT Belitung Industri Sejahtera	INDONESIA
Tin	PT Bukit Timah	INDONESIA
Tin	PT Mitra Stania Prima	INDONESIA

矿物名称	冶炼厂名称	国家
Tin	PT Panca Mega Persada	INDONESIA
Tin	PT Prima Timah Utama	INDONESIA
Tin	PT Refined Bangka Tin	INDONESIA
Tin	PT Sariwiguna Binasentosa	INDONESIA
Tin	PT Stanindo Inti Perkasa	INDONESIA
Tin	PT Timah Tbk Kundur	INDONESIA
Tin	PT Timah Tbk Mentok	INDONESIA
Tin	PT Timah Nusantara	INDONESIA
Tin	PT Tinindo Inter Nusa	INDONESIA
Tin	PT Tommy Utama	INDONESIA
Tin	Rui Da Hung	TAIWAN, PROVINCE OF CHINA
Tin	Soft Metais Ltda.	BRAZIL
Tin	Thaisarco	THAILAND
Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA
Tin	VQB Mineral and Trading Group JSC	VIET NAM
Tin	White Solder Metalurgia e Mineracao Ltda.	BRAZIL
Tin	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA
Tin	Tin Smelting Branch of Yunnan Tin Co., Ltd.	CHINA
Tin	CV Venus Inti Perkasa	INDONESIA
Tin	Magnu's Minerais Metais e Ligas Ltda.	BRAZIL
Tin	PT Tirus Putra Mandiri	INDONESIA
Tin	Melt Metais e Ligas S.A.	BRAZIL
Tin	PT ATD Makmur Mandiri Jaya	INDONESIA
Tin	O.M. Manufacturing Philippines, Inc.	PHILIPPINES
Tin	Electro-Mechanical Facility of the Cao Bang Minerals & Metallurgy Joint Stock Company	VIET NAM
Tin	Nghe Tinh Non-Ferrous Metals Joint Stock Company	VIET NAM
Tin	Tuyen Quang Non-Ferrous Metals Joint Stock Company	VIET NAM
Tin	PT Cipta Persada Mulia	INDONESIA
Tin	An Vinh Joint Stock Mineral Processing Company	VIET NAM
Tin	Resind Industria e Comercio Ltda.	BRAZIL
Tin	Super Ligas	BRAZIL
Tin	Metallo Belgium N.V.	BELGIUM
Tin	Metallo Spain S.L.U.	SPAIN
Tin	PT Sukses Inti Makmur	INDONESIA
Tin	Thai Nguyen Mining and Metallurgy Co., Ltd.	VIET NAM
Tin	PT Menara Cipta Mulia	INDONESIA
Tin	HuiChang Hill Tin Industry Co., Ltd.	CHINA
Tin	Modeltech Sdn Bhd	MALAYSIA
Tin	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CHINA
Tin	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA

矿物名称	冶炼厂名称	国家
Tin	PT Bangka Serumpun	INDONESIA
Tin	Pongpipat Company Limited	MYANMAR
Tin	Tin Technology & Refining	UNITED STATES OF AMERICA
Tin	Dongguan CiEXPO Environmental Engineering Co., Ltd.	CHINA
Tin	Ma'anshan Weitai Tin Co., Ltd.	CHINA
Tin	PT Rajawali Rimba Perkasa	INDONESIA
Tin	Luna Smelter, Ltd.	RWANDA
Tin	Yunnan Yunfan Non-ferrous Metals Co., Ltd.	CHINA
Tin	Precious Minerals and Smelting Limited	INDIA
Tin	Gejiu City Fuxiang Industry and Trade Co., Ltd.	CHINA
Tin	PT Mitra Sukses Globalindo	INDONESIA
Tin	CRM Fundicao De Metais E Comercio De Equipamentos Eletronicos Do Brasil Ltda	BRAZIL
Tin	CRM Synergies	SPAIN
Tin	Fabrica Auricchio Industria e Comercio Ltda.	BRAZIL
Tin	PT Putera Sarana Shakti (PT PSS)	INDONESIA
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	CHINA
Tantalum	Exotech Inc.	UNITED STATES OF AMERICA
Tantalum	F&X Electro-Materials Ltd.	CHINA
Tantalum	XIMEI RESOURCES (GUANGDONG) LIMITED	CHINA
Tantalum	Jiujiang JinXin Nonferrous Metals Co., Ltd.	CHINA
Tantalum	Jiujiang Tanbre Co., Ltd.	CHINA
Tantalum	AMG Brasil	BRAZIL
Tantalum	Metallurgical Products India Pvt., Ltd.	INDIA
Tantalum	Mineracao Taboca S.A.	BRAZIL
Tantalum	Mitsui Mining & Smelting	JAPAN
Tantalum	NPM Silmet AS	ESTONIA
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA
Tantalum	QuantumClean	UNITED STATES OF AMERICA
Tantalum	Yanling Jincheng Tantalum & Niobium Co., Ltd.	CHINA
Tantalum	Solikamsk Magnesium Works OAO	RUSSIAN FEDERATION
Tantalum	Taki Chemical Co., Ltd.	JAPAN
Tantalum	Telex Metals	UNITED STATES OF AMERICA
Tantalum	Ulba Metallurgical Plant JSC	KAZAKHSTAN
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA
Tantalum	D Block Metals, LLC	UNITED STATES OF AMERICA
Tantalum	FIR Metals & Resource Ltd.	CHINA
Tantalum	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.	CHINA
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA

矿物名称	冶炼厂名称	国家
Tantalum	KEMET de Mexico	MEXICO
Tantalum	TANIOBIS Co., Ltd.	THAILAND
Tantalum	TANIOBIS GmbH	GERMANY
Tantalum	H.C. Starck Hermsdorf GmbH	GERMANY
Tantalum	H.C. Starck Inc.	UNITED STATES OF AMERICA
Tantalum	TANIOBIS Japan Co., Ltd.	JAPAN
Tantalum	TANIOBIS Smelting GmbH & Co. KG	GERMANY
Tantalum	Global Advanced Metals Boyertown	UNITED STATES OF AMERICA
Tantalum	Global Advanced Metals Aizu	JAPAN
Tantalum	Resind Industria e Comercio Ltda.	BRAZIL
Tantalum	Jiangxi Tuohong New Raw Material	CHINA
Tantalum	RFH Yancheng Jinye New Material Technology Co., Ltd.	CHINA
Gold	Advanced Chemical Company	UNITED STATES OF AMERICA
Gold	Aida Chemical Industries Co., Ltd.	JAPAN
Gold	Allgemeine Gold-und Silberscheideanstalt A.G.	GERMANY
Gold	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN
Gold	AngloGold Ashanti Corrego do Sitio Mineracao	BRAZIL
Gold	Argor-Heraeus S.A.	SWITZERLAND
Gold	Asahi Pretec Corp.	JAPAN
Gold	Asaka Riken Co., Ltd.	JAPAN
Gold	Atasay Kuyumculuk Sanayi Ve Ticaret A.S.	TURKEY
Gold	Aurubis AG	GERMANY
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES
Gold	Boliden AB	SWEDEN
Gold	C. Hafner GmbH + Co. KG	GERMANY
Gold	Caridad	MEXICO
Gold	CCR Refinery - Glencore Canada Corporation	CANADA
Gold	Cendres + Metaux S.A.	SWITZERLAND
Gold	Yunnan Copper Industry Co., Ltd.	CHINA
Gold	Chimet S.p.A.	ITALY
Gold	Chugai Mining	JAPAN
Gold	Daye Non-Ferrous Metals Mining Ltd.	CHINA
Gold	DSC (Do Sung Corporation)	KOREA, REPUBLIC OF
Gold	DODUCO Contacts and Refining GmbH	GERMANY
Gold	Dowa	JAPAN
Gold	Eco-System Recycling Co., Ltd. East Plant	JAPAN
Gold	JSC Novosibirsk Refinery	RUSSIAN FEDERATION
Gold	Refinery of Seemine Gold Co., Ltd.	CHINA
Gold	Guoda Safina High-Tech Environmental Refinery Co., Ltd.	CHINA

矿物名称	冶炼厂名称	国家
Gold	Hangzhou Fuchunjiang Smelting Co., Ltd.	CHINA
Gold	LT Metal Ltd.	KOREA, REPUBLIC OF
Gold	Heimerle + Meule GmbH	GERMANY
Gold	Heraeus Metals Hong Kong Ltd.	CHINA
Gold	Heraeus Germany GmbH Co. KG	GERMANY
Gold	Hunan Chenzhou Mining Co., Ltd.	CHINA
Gold	Hunan Guiyang yinxing Nonferrous Smelting Co., Ltd.	CHINA
Gold	HwaSeong CJ CO., LTD.	KOREA, REPUBLIC OF
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	CHINA
Gold	Ishifuku Metal Industry Co., Ltd.	JAPAN
Gold	Istanbul Gold Refinery	TURKEY
Gold	Japan Mint	JAPAN
Gold	Jiangxi Copper Co., Ltd.	CHINA
Gold	Asahi Refining USA Inc.	UNITED STATES OF AMERICA
Gold	Asahi Refining Canada Ltd.	CANADA
Gold	JSC Ekaterinburg Non-Ferrous Metal Processing Plant	RUSSIAN FEDERATION
Gold	JSC Uralelectromed	RUSSIAN FEDERATION
Gold	JX Nippon Mining & Metals Co., Ltd.	JAPAN
Gold	Kazakhmys Smelting LLC	KAZAKHSTAN
Gold	Kazzinc	KAZAKHSTAN
Gold	Kennecott Utah Copper LLC	UNITED STATES OF AMERICA
Gold	Kojima Chemicals Co., Ltd.	JAPAN
Gold	Kyrgyzaltyn JSC	KYRGYZSTAN
Gold	L'azurde Company For Jewelry	SAUDI ARABIA
Gold	Lingbao Gold Co., Ltd.	CHINA
Gold	Lingbao Jinyuan Tonghui Refinery Co., Ltd.	CHINA
Gold	LS-NIKKO Copper Inc.	KOREA, REPUBLIC OF
Gold	Luoyang Zijin Yinhui Gold Refinery Co., Ltd.	CHINA
Gold	Materion	UNITED STATES OF AMERICA
Gold	Matsuda Sangyo Co., Ltd.	JAPAN
Gold	Metalor Technologies (Suzhou) Ltd.	CHINA
Gold	Metalor Technologies (Hong Kong) Ltd.	CHINA
Gold	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE
Gold	Metalor Technologies S.A.	SWITZERLAND
Gold	Metalor USA Refining Corporation	UNITED STATES OF AMERICA
Gold	Metalurgica Met-Mex Penoles S.A. De C.V.	MEXICO
Gold	Mitsubishi Materials Corporation	JAPAN
Gold	Mitsui Mining and Smelting Co., Ltd.	JAPAN
Gold	Moscow Special Alloys Processing Plant	RUSSIAN FEDERATION

矿物名称	冶炼厂名称	国家
Gold	Nadir Metal Rafineri San. Ve Tic. A.S.	TURKEY
Gold	Navoi Mining and Metallurgical Combinat	UZBEKISTAN
Gold	Nihon Material Co., Ltd.	JAPAN
Gold	Ohura Precious Metal Industry Co., Ltd.	JAPAN
Gold	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	RUSSIAN FEDERATION
Gold	PAMP S.A.	SWITZERLAND
Gold	Penglai Penggang Gold Industry Co., Ltd.	CHINA
Gold	Prioksky Plant of Non-Ferrous Metals	RUSSIAN FEDERATION
Gold	PT Aneka Tambang (Persero) Tbk	INDONESIA
Gold	PX Precinox S.A.	SWITZERLAND
Gold	Rand Refinery (Pty) Ltd.	SOUTH AFRICA
Gold	Royal Canadian Mint	CANADA
Gold	Sabin Metal Corp.	UNITED STATES OF AMERICA
Gold	Samduck Precious Metals	KOREA, REPUBLIC OF
Gold	Samwon Metals Corp.	KOREA, REPUBLIC OF
Gold	SEMPSA Joyeria Plateria S.A.	SPAIN
Gold	Shandong Tiancheng Biological Gold Industrial Co., Ltd.	CHINA
Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA
Gold	Sichuan Tianze Precious Metals Co., Ltd.	CHINA
Gold	SOE Shyolkovsky Factory of Secondary Precious Metals	RUSSIAN FEDERATION
Gold	Solar Applied Materials Technology Corp.	TAIWAN, PROVINCE OF CHINA
Gold	Sumitomo Metal Mining Co., Ltd.	JAPAN
Gold	Super Dragon Technology Co., Ltd.	TAIWAN, PROVINCE OF CHINA
Gold	Tanaka Kikinzoku Kogyo K.K.	JAPAN
Gold	Great Wall Precious Metals Co., Ltd. of CBPM	CHINA
Gold	Shandong Gold Smelting Co., Ltd.	CHINA
Gold	Tokuriki Honten Co., Ltd.	JAPAN
Gold	Tongling Nonferrous Metals Group Co., Ltd.	CHINA
Gold	Torecom	KOREA, REPUBLIC OF
Gold	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM
Gold	United Precious Metal Refining, Inc.	UNITED STATES OF AMERICA
Gold	Valcambi S.A.	SWITZERLAND
Gold	Western Australian Mint (T/a The Perth Mint)	AUSTRALIA
Gold	Yamakin Co., Ltd.	JAPAN
Gold	Yokohama Metal Co., Ltd.	JAPAN
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA
Gold	Gold Refinery of Zijin Mining Group Co., Ltd.	CHINA
Gold	Morris and Watson	NEW ZEALAND
Gold	SAFINA A.S.	CZECHIA

矿物名称	冶炼厂名称	国家
Gold	Guangdong Jinding Gold Limited	CHINA
Gold	Umicore Precious Metals Thailand	THAILAND
Gold	Geib Refining Corporation	UNITED STATES OF AMERICA
Gold	MMTC-PAMP India Pvt., Ltd.	INDIA
Gold	KGHM Polska Miedz Spolka Akcyjna	POLAND
Gold	Fidelity Printers and Refiners Ltd.	ZIMBABWE
Gold	Singway Technology Co., Ltd.	TAIWAN, PROVINCE OF CHINA
Gold	Shandong Humon Smelting Co., Ltd.	CHINA
Gold	Shenzhen Zhonghenglong Real Industry Co., Ltd.	CHINA
Gold	Al Etihad Gold Refinery DMCC	UNITED ARAB EMIRATES
Gold	Emirates Gold DMCC	UNITED ARAB EMIRATES
Gold	International Precious Metal Refiners	UNITED ARAB EMIRATES
Gold	Kaloti Precious Metals	UNITED ARAB EMIRATES
Gold	Sudan Gold Refinery	SUDAN
Gold	T.C.A S.p.A	ITALY
Gold	REMONDIS PMR B.V.	NETHERLANDS
Gold	Fujairah Gold FZC	UNITED ARAB EMIRATES
Gold	Industrial Refining Company	BELGIUM
Gold	Shirpur Gold Refinery Ltd.	INDIA
Gold	Korea Zinc Co., Ltd.	KOREA, REPUBLIC OF
Gold	Marsam Metals	BRAZIL
Gold	TOO Tau-Ken-Altyn	KAZAKHSTAN
Gold	Abington Reldan Metals, LLC	UNITED STATES OF AMERICA
Gold	SAAMP	FRANCE
Gold	L'Orfebre S.A.	ANDORRA
Gold	8853 S.p.A.	ITALY
Gold	Italpreziosi	ITALY
Gold	SAXONIA Edelmetalle GmbH	GERMANY
Gold	WIELAND Edelmetalle GmbH	GERMANY
Gold	Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	AUSTRIA
Gold	AU Traders and Refiners	SOUTH AFRICA
Gold	GGC Gujrat Gold Centre Pvt. Ltd.	INDIA
Gold	Sai Refinery	INDIA
Gold	Modeltech Sdn Bhd	MALAYSIA
Gold	Bangalore Refinery	INDIA
Gold	Kyshtym Copper-Electrolytic Plant ZAO	RUSSIAN FEDERATION
Gold	Degussa Sonne / Mond Goldhandel GmbH	GERMANY
Gold	Pease & Curren	UNITED STATES OF AMERICA
Gold	JALAN & Company	INDIA
Gold	SungEel HiMetal Co., Ltd.	KOREA, REPUBLIC OF

矿物名称	冶炼厂名称	国家
Gold	Planta Recuperadora de Metales SpA	CHILE
Gold	Safimet S.p.A	ITALY
Gold	State Research Institute Center for Physical Sciences and Technology	LITHUANIA
Gold	African Gold Refinery	UGANDA
Gold	Gold Coast Refinery	GHANA
Gold	NH Recytech Company	KOREA, REPUBLIC OF
Gold	QG Refining, LLC	UNITED STATES OF AMERICA
Gold	Dijllah Gold Refinery FZC	UNITED ARAB EMIRATES
Gold	CGR Metalloys Pvt Ltd.	INDIA
Gold	Sovereign Metals	INDIA
Gold	C.I Metales Procesados Industriales SAS	COLOMBIA
Gold	Eco-System Recycling Co., Ltd. North Plant	JAPAN
Gold	Eco-System Recycling Co., Ltd. West Plant	JAPAN
Gold	Augmont Enterprises Private Limited	INDIA
Gold	Kundan Care Products Ltd.	INDIA
Gold	Emerald Jewel Industry India Limited (Unit 1)	INDIA
Gold	Emerald Jewel Industry India Limited (Unit 2)	INDIA
Gold	Emerald Jewel Industry India Limited (Unit 3)	INDIA
Gold	Emerald Jewel Industry India Limited (Unit 4)	INDIA
Gold	K.A. Rasmussen	NORWAY
Gold	Alexy Metals	UNITED STATES OF AMERICA
Gold	Sancus ZFS (L'Orfebre, SA)	COLOMBIA
Gold	Sellem Industries Ltd.	MAURITANIA
Gold	MD Overseas	INDIA
Gold	Metallix Refining Inc.	UNITED STATES OF AMERICA
Gold	Metal Concentrators SA (Pty) Ltd.	SOUTH AFRICA
Gold	WEEEREFINING	FRANCE
Gold	Value Trading	BELGIUM
Cobalt	Gem (Jiangsu) Cobalt Industry Co., Ltd.	CHINA
Cobalt	Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.	CHINA
Cobalt	Zhuhai Kelixin Metal Materials Co., Ltd.	CHINA
Cobalt	Ganzhou Tengyuan Cobalt New Material Co., Ltd.	CHINA
Cobalt	Guangxi Yinyi Advanced Material Co., Ltd.	CHINA
Cobalt	Tianjin Maolian Science & Technology Co., Ltd.	CHINA
Cobalt	Hunan Brunp Recycling Technology Co., Ltd.	CHINA
Cobalt	Nantong Xinwei Nickel Cobalt Technology Development Co., Ltd.	CHINA
Cobalt	Zhejiang Huayou Cobalt Company Limited	CHINA
Cobalt	Umicore Finland Oy	FINLAND
Cobalt	Gangzhou Yi Hao Umicore Industry Co.	CHINA

矿物名称	冶炼厂名称	国家
Cobalt	Umicore Olen	BELGIUM
Cobalt	Dynatec Madagascar Company	MADAGASCAR
Cobalt	JSC Kolskaya Mining and Metallurgical Company (Kola MMC)	RUSSIAN FEDERATION
Cobalt	Port Colborne Refinery	CANADA
Cobalt	Nanjing Hanrui Cobalt	CHINA
Cobalt	Quzhou Huayou Cobalt New Material Co., Ltd.	CHINA
Cobalt	Kamoto Copper Company	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Chemaf Etoile	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Societe pour le Traitment du Terril de Lubumbashi (STL)	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	La Compagnie de Traitement des Rejets de Kingamyambo S.A.	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Sumitomo Metal Mining	JAPAN
Cobalt	Mine de Bou-Azzer	MOROCCO
Cobalt	Compagnie de Tifnout Tiranimine	MOROCCO
Cobalt	Guangdong Jiana Energy Technology Co., Ltd.	CHINA
Cobalt	Jiangsu Xiongfeng Technology Co., Ltd.	CHINA
Cobalt	SungEel HiTech Co., Ltd.	KOREA, REPUBLIC OF
Cobalt	XTC New Energy Materials (Xiamen) LTD.	CHINA
Cobalt	Jiangxi Jiangwu Cobalt industrial Co., Ltd.	CHINA
Cobalt	Jingmen GEM Co., Ltd.	CHINA
Cobalt	Ganzhou Highpower Technology Co., Ltd.	CHINA
Cobalt	NORILSK NICKEL HARJAVALTA OY	FINLAND
Cobalt	New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	CHINA
Cobalt	Glencore Nikkelverk Refinery	NORWAY
Cobalt	Hunan Yacheng New Materials Co., Ltd.	CHINA
Cobalt	Murrin Murrin Nickel Cobalt Plant	AUSTRALIA
Cobalt	Hunan CNGR New Energy Science & Technology Co., Ltd.	CHINA
Cobalt	Cosmo Chemical, Ltd.	KOREA, REPUBLIC OF
Cobalt	Ningbo Yanmen Chemical Co., Ltd.	CHINA
Cobalt	SOCIETE MINIERE DU KATANGA (SOMIKA SARL)	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Tenke Fungurume Mining SA	CONGO, DEMOCRATIC REPUBLIC OF THE
Cobalt	Jiangxi Rui da Xinnengyuan Technology Co., Ltd.	CHINA
Cobalt	Ningbo Hubang New Material Co., Ltd.	CHINA
Cobalt	Xiangtan Huacheng Nickel Cobalt New Material Co., Ltd.	CHINA
Cobalt	Fairsky Industrial Co., Limited	CHINA
Cobalt	Hunan Jinxin New Material Holding Co., Ltd.	CHINA
Cobalt	CoreMax Corporation	TAIWAN, PROVINCE OF CHINA
Cobalt	Chizhou CN New Materials and Technology Co., Ltd.	CHINA
Cobalt	ICoNiChem	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
Cobalt	Zhejiang Greatpower Cobalt Materials Co., Ltd.	CHINA
Cobalt	Mechema Taiwan Plant 1	TAIWAN, PROVINCE OF CHINA

矿物名称	冶炼厂名称	国家
Cobalt	Mechema Taiwan Plant 2	TAIWAN, PROVINCE OF CHINA
Cobalt	Mechema Korea, Co., Ltd.	KOREA, REPUBLIC OF
Cobalt	Mechema Chemicals shang-yu	CHINA
Cobalt	Mechema Chemicals (Thailand) Co., Ltd.	THAILAND
Cobalt	PT Mechema Indonesia	INDONESIA
Cobalt	Harima Refinery, Sumitomo Metal Mining	JAPAN
Cobalt	Guizhou CNGR Resource Recycling Industry Development Co., Ltd.	CHINA
Cobalt	Anhui Hanrui New Materials Co., Ltd.	CHINA
Mica	Imerys Mica Kings Mountain, Inc.	UNITED STATES OF AMERICA