

RESPONSIBLE SOURCING OF MINERALS AND METALS

REPORT 2021



SUMMARY

This report describes Sandvik's due diligence process for the responsible sourcing of minerals and metals that are contained in the products put on the market. Specifically, it outlines the various policies, procedures and tools that support Sandvik's work with responsible sourcing for conflict minerals (Tin, Tungsten, Tantalum and Gold, commonly referred to as 3TG) and cobalt. It also provides information on our 3TG and cobalt supply chain risk assessment and mitigation.

Sandvik's commitment to due diligence for raw materials has been based on the internationally recognized good practice framework, the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas since the establishment of the work in 2013. The commitment to implement the OECD Due Diligence Guidance is enshrined in Sandvik's Statement on the Responsible Sourcing of Minerals and Metals and Supplier Code of Conduct. On an annual basis, suppliers are required to populate the Conflict Minerals Reporting Template (CMRT) and Cobalt Reporting Template (CRT) /Extended Minerals Reporting Template (EMRT) following which their responses are analyzed, validated and supplier risks identified. This report covers the reporting period January-December 2021 when reporting supplier risk assessment data though information is also provided about Sandvik's activities to review and update the due diligence process in 2022. The due diligence data presented in this report relates to 2021. During this period Sandvik identified 100 and 74 suppliers as being in scope for 3TG respectively cobalt. While Sandvik received a response rate of 87 % on the CMRTs and 85 % on the CRT/EMRT during the reporting period, it has seen an improvement in the response rate and quality of the surveys since the establishment of the work with due diligence in 2013, in part due to its ongoing engagement with suppliers to help them meet its responsible sourcing requirements.

In the beginning of 2022, Sandvik started a project together with an external service provider, the advisory and audit firm RCS Global Ltd., with the aim of reviewing and strengthening the due diligence process for responsible sourcing of minerals and metals. The process identified certain gapsin alignment with the OECD Due Diligence Guidance and the EU Conflict Minerals Regulation, which recently entered into force and incorporates the OECD Due Diligence Guidance. The due diligence management system is currently in the process of being updated including Sandvik's Responsible Sourcing of Minerals and Metals Procedure and adjustments have also been made to the governance structure to facilitate more efficient and effective implementation. The implementation of the updated processes and new ways of working based on the project outcome will continue to be a priority through to 2023.

TABLE OF CONTENTS

1. INTRODUCTION					
11	Introduction to Sandvik	Л			
1.1		4			
1.2	3 I G and Cobalt	4			
~ ~ ~		_			
2.54	ANDVIK S DUE DILIGENCE ON 31G AND COBALT SUPPLIERS	5			
2.1	Due diligence in five steps	5			
2.2	Looking Ahead	6			
3. RE	3. RESULTS OF 2021 SUPPLY CHAIN RISK ASSESSMENT				
3.1	Assessment of Smelters and Refiners	8			
4. RECYCLED MATERIAL 9					
5. ACHIEVEMENTS AND CHALLENGES					
		-			
6 LOOKING FORWARD/NEXT STEPS 9					
ANNEX: SMELTER AND REFINER LIST 2021					

1. INTRODUCTION

1.1 INTRODUCTION TO SANDVIK

Sandvik is a global high-tech engineering company with a strong focus on enhancing customer productivity, profitability and sustainability through unique expertise and solutions for the manufacturing, mining and infrastructure industries with approximately 44,000 employees and sales in about 150 countries.

Sandvik conducts operations in four business areas - Sandvik Manufacturing and Machining Solutions, Sandvik Mining and Rock Solutions, Sandvik Rock Processing Solutions and Sandvik Materials Technology, with responsibility for research and development (R&D), production and sales of their respective products and services. The Business area Sandvik Manufacturing and Machining Solutions consists of two business area segments: Sandvik Manufacturing Solutions and Sandvik Machining Solutions, the data presented in this report is solely from Sandvik Machining Solutions. Sandvik Mining and Rock Solutions and Sandvik Rock Processing Solutions will begin collecting their supply chain surveys and will report for the first time in 2023. Sandvik Materials Technology is planned to be listed as a separate company on Nasdaq Stockholm on August 31, 2022. On the day of the listing, Sandvik Materials Technology will be rebranded as Alleima and will not be part of Sandvik Group. The data presented from Sandvik Materials Technology is thus presented separately from Sandvik in this report.

Wolfram Bergbau & Hütten AG (WBH), located in Austria, is part of Sandvik Machining Solutions. Besides other operations, WBH operates one of the world's largest tungsten refineries and is listed as a Responsible Mineral Initiative (RMI) Responsible Minerals Assurance Process compliant tungsten facility (RMAP Conformant Tungsten Smelters at responsiblemineralsinitiative.org). As a "smelter-level" facility, WBH's refinery is considered a supply chain choke point between upstream mines and downstream producers. The material received therefore needs to be traced to the source. The company has its own Responsible sourcing statement, reports annually according to the OECD Step 5 guideline Wolfram Due Diligence Report for Mineral Supplies in Year 2021, and undergoes annual third-party assurance assessments. As such the due diligence practices of WBH are out of scope of this report.

1.2 3TG AND COBALT

A large part of the world's natural mineral resources is found in conflict-affected and high-risk areas (CAHRAs), which are marked by institutional weakness, political instability and human rights abuses. Thus, mineral supply chains from CAHRAs compose a risk to either directly or indirectly contribute to human rights violations, including child labor, conflict and financial crime. The OECD Due Diligence Guidance provides a five-step, good-practice framework for risk-based due diligence including from CAHRAs and has been incorporated into a number of good practice standards and regulation including the US Dodd-Frank Act and the EU Conflict Mineral Regulation.

The term conflict minerals refers to the metals tantalum, tin, tungsten and gold (3TG) as defined by the US Dodd-Frank Act and the EU Conflict Minerals Regulation. The EU Conflict Minerals Regulation entered into force on 1 January 2021. The regulation requires EU companies to ensure they import 3TGs minerals and metals from responsible sources and to conduct supply chain due diligence based on the OECD five-step framework. The Dodd-Frank Act came into force in 2010 and includes section 1502, which requires publicly traded companies using conflict minerals in their products to disclose the source of the conflict minerals. The law is intended to prevent the Democratic Republic of Congo (DRC) national army and rebel groups from funding conflict with earnings from the minerals trade. Even though cobalt is not identified as a conflict mineral, around 74 % of the world's mined cobalt is produced in the DRC¹, which is a CAHRA. Several reports have raised concerns about the adverse social impacts of cobalt mining, including the risk of child labour and hazardous working conditions commonly found in informal artisanal cobalt mining. Sandvik has decided to apply its due diligence management system to both 3TG and cobalt.

Sandvik is committed to contributing to sustainable development for present and future generations, which includes the ethical sourcing of minerals. Sandvik condemns all activities in the raw material sector that are connected to illegal or unlawful exploitation of ores, that directly or indirectly finance, or benefit armed groups in conflict areas, or that contribute to serious human rights violations, including child labor. The <u>Sandvik Supplier</u>. <u>Code of Conduct</u> and <u>Sandvik Statement on Responsible</u> <u>sourcing of minerals and metals</u> reflect the company's commitment to responsible sourcing of minerals and metals in accordance with the OECD Due Diligence Guidance. These documents lay the foundation for responsible sourcing and supplier requirements for 3TG and cobalt.

¹ https://www.cobaltinstitute.org/wp-content/uploads/2022/05/FINAL_Cobalt-Market-Report-2021_Cobalt-Institute-3.pdf

2. SANDVIK'S DUE DILIGENCE ON 3TG AND COBALT SUPPLIERS

2.1 DUE DILIGENCE IN FIVE STEPS

This section presents Sandvik's commitment to the OECD Five-Step Framework for Risk-Based Due Diligence² for 3TG and cobalt.

STEP 1: ESTABLISH STRONG COMPANY MANAGEMENT SYSTEMS:

The <u>Sandvik Statement on Responsible sourcing of</u> <u>minerals and metals</u> and <u>Sandvik Supplier Code of</u> <u>Conduct</u> express Sandvik's commitment to responsible sourcing of minerals and metals in accordance with the OECD Due Diligence Guidance. These documents lay the foundation for Sandvik's work with responsible sourcing and supplier requirements for 3TG and cobalt.

Sandvik updated its Statement on Responsible Sourcing of Minerals and Metals in 2021. According to the statement, Sandvik suppliers are obligated to report information on their supply chain and due diligence practices through common industry tools like the Responsible Minerals Initiatives CMRT and CRT or EMRT³. Third-party assurance or certification, such as the Responsible Minerals Initiative (RMI) Responsible Mineral Assurance Process (RMAP), are required for all 3TG and cobalt smelters and refiners in the supply chain. Sandvik requires its suppliers to ensure that the smelters and refiners in their supply chains are assessed as compliant with accepted third-party audit programs such as the RMI RMAP. Cobalt smelters and refineries must aim to be assessed as compliant or must, at minimum, take part and actively engage in third-party audit programs. The statement was updated to reflect the changes from the EU 'Conflict Minerals' Regulation (2017/821) in 7/7-2021.

The Sandvik Supplier Code of Conduct is a central document that outlines the sustainability requirements that suppliers must comply with in order to do business with Sandvik, including those related to the responsible sourcing of minerals and metals. The Supplier Code of Conduct is incorporated into supplier agreements. The expectation is that Sandvik's direct suppliers will cascade the requirements to their own supply chain. Suppliers of raw materials and components containing 3TG and/or cobalt that are part of the direct supply chain of Sandvik's products must comply with all applicable laws concerning responsible sourcing and conflict minerals. They must also follow the OECD Due Diligence Guidance and upon request provide required information on their supply chain and due diligence practices and ensure that all supplies in their 3TG and cobalt supply chain are traceable to smelter or refiner level. Sandvik has a whistleblowing system called "Speak Up" where all internal and external stakeholders can anonymously report suspected breaches of Sandvik's Supplier Code of Conduct and policies. The possibility to speak up is an important part of the Sandvik culture, helping to build trust, improve the work environment and to reduce risks for the company.

Sandvik's supply chain due diligence process is formalized in the Responsible Sourcing of Minerals and Metals Procedure, which was also updated in 2021. The procedure covers the responsible sourcing of 3TG and cobalt and applies to all entities within Sandvik that are considered downstream on the smelter level. The procedure outlines a step-by-step process for conducting supply chain due diligence on 3TG and cobalt suppliers. It also outlines the governance structure, which allocates roles and responsibilities for the implementation of the due diligence to decision-making and operational levels in Sandvik across business areas and divisions. Sandvik's governance structure for supply chain due diligence is of a decentralized nature and is built on cross collaboration between each Business area. An updated governance structure has been formalized, it suggests that Sandvik's responsible sourcing of minerals and metals working group, which consists of representatives from Sandvik's Business Areas, together with division lead/ procurement within each division will report to senior management.

STEP 2: IDENTIFY AND ASSESS RISK IN THE SUPPLY CHAIN:

Sandvik suppliers of 3TG and cobalt are required to populate the RMI CMRT and/or CRT/EMRT templates on an annual basis with information related to their sourcing and due diligence practices. The responses from the CMRT and CRT/EMRT are analyzed, validated and risks identified by the personnel responsible within each division. Risks relate to incomplete or unreasonable responses as well as the presence of non-conformant smelters and refiners in the supply chain. As

² OECD - Mineral Supply Chain (duediligenceguidance.org)

³ The RMI phased out the Cobalt Reporting Template (CRT) and Mica Reporting Template (MRT) on March 31st, 2022, it has been replaced with the EMRT.

a supporting tool to assess whether the smelters and refiners in the supply chain are conformant with OECD and RMI RMAP standards, Sandvik refers to the Smelter or Refiner Master Tool, regularly updated by the RMI. At present, Sandvik Machining Solutions and Sandvik Materials Technology use the CMRT and CRT/ EMRT to identify and assess risks in their supply chain.

For the next reporting period Sandvik will be using an updated risk identification and assessment methodology to further strengthen the due diligence process, including four supplier risk categories.

STEP 3: MANAGE RISKS:

Where supplier risks have been identified, Sandvik develops risk mitigation plans that are tailored to each supplier according to the risk severity. Some of the mitigation activities applied are listed below.

- Direct engagement to encourage suppliers to provide the Smelters and Refiners (SOR) list in their CMRT/CRT/EMRT or to improve the completeness of their response
- Training suppliers to explain Sandvik's expectations and the requirements of the CMRT/CRT/EMRT
- Encourage smelters that are not RMAP certified to participate in the program.

STEP 4: THIRD PARTY ASSURANCE AT IDENTIFIED POINTS IN THE SUPPLY CHAIN

As a downstream company, Sandvik regularly engages with its first-tier suppliers in order to ensure that all smelters and refiners – identified points of material transformation – in its 3TG and cobalt supply chain have the capacity or a pathway to become third-party assured against the RMI RMAP. This includes ongoing engagement of Sandvik's suppliers, including selected smelters and refiners, to communicate Sandvik's responsible sourcing requirements and advise on appropriate industry tools and training resources for RMAP certification.

Besides these actions, Sandvik also commissions independent second party audits of the due diligence practices of selected suppliers. In 2021, the independent auditor RCS Global Ltd. performed responsible sourcing audits on two of Sandvik's direct cobalt suppliers. The audit requirements related to the OECD Due Diligence Guidance 5-Step Framework for Risk-Based Due Diligence. Key areas of non-conformance identified were related to steps 1,2,3 and 5. Findings from Auditee 1 showed non conformances in their overall management system, no established risk assessment process and therefore no risk mitigation. Findings from Auditee 2 showed generally minor non conformances with major non conformance only in step 4. A corrective action plan was developed with both suppliers and a timeline was set for the implementation of specific and measurable corrective actions. Because of the Covid-19 travel restrictions, site visits, staff interviews, and document review were all conducted remotely.

Additionally, Sandvik's Wolfram Bergbau & Hütten AG is a smelter/refiner facility based in Austria. Given that it is an identified point in Sandvik's own supply chain, the facility undergoes annual third–party assessments against the RMAP Tungsten Smelter Standard, which assures conformance with the OECD Due Diligence Guidance. The most recent assessment was carried out by ARCHE Advisors, USA from 10 to 12 August 2021 without any findings. The assessment summary is published under Wolfram Public Report.pdf (<u>responsiblemineralsinitiative.org</u>).

STEP 5: PUBLICLY REPORT ON DUE DILIGENCE

In accordance with OECD step 5, Sandvik present activities and results on due diligence. This stand-alone report is the first one published. The report is available on the company website and on the Sandvik intranet.

2.2 LOOKING AHEAD

In 2022, Sandvik started a project with an external service provider, the advisory and audit firm RCS Global Ltd. with the purpose of reviewing its responsible sourcing for 3TG and cobalt for alignment with the OECD Due Diligence Guidance, external and internal rules including the Responsible Sourcing of Minerals Procedure and Statement and the EU Conflict Minerals Regulation (2017/821). The process will include a mock audit which will identify any remaining gaps in alignment with the OECD Due Diligence Guidance. Based on the findings from the project, Sandvik's due diligence management system and governance structure will be updated. Sandvik will focus on the implementation of the updated due diligence management system through to 2023 when the next due diligence report will be published covering the reporting period January-December 2022.

3. RESULTS OF 2021 SUPPLY CHAIN RISK ASSESSMENT

During the reporting period, Sandvik identified a total of 100 suppliers as being in-scope for 3TG and 74 for cobalt across its four Business areas. The suppliers were contacted and requested to complete the CMRT and CRT/EMRT.



3.1 ASSESSMENT OF SMELTERS AND REFINERS

3TG SUPPLY CHAIN

According to the 3TG supply chain analysis made, using the SOR master tool issued by RMI, Sandvik can state that 90 % of the smelters in the supply chain have Conformant (112) or Active (4) status. For 7 % of the smelters, the audit is no longer required due to suspension or closure of operations – Not Applicable status. For 2 % of smelters, outreach is required – the supplier should contact smelter and require RMAP participation. Less than 1 % of the smelters refused to participate in RMAP. In these cases, Sandvik is asking its supplier to adopt responsible sourcing criteria that only allow sourcing from conformant SORs.

COBALT SUPPLY CHAIN

As part of the Cobalt supply chain analysis, 71 % of the smelters have been identified as Conformant, 3 % as Active and 11 % of reported smelters have a Not Applicable status according to the SOR master tool issued by RMI. Furthermore, 7 % of smelters are in communication with RMAP and/or member company. For 4 % of the smelters, outreach from an RMI member company is needed to encourage their participation in RMAP audit and the remaining 4 % of the smelters have RMI Due Diligence Review status.

RISKS IDENTIFIED

Based on an evaluation of the data collected, the following risks in the supply chain have been identified that lead to smelters compliance with OECD and RMAP standards cannot be verified:

- Not all suppliers have listed their SORs.
- Not all smelters in the supply chain are involved in RMAP.
- Smelters are not interested in undergoing RMAP.

3TG Smelters or Refiners RMAP status



Cobalt Smelters or Refiners RMAP status



4. RECYCLED MATERIAL

The vast majority of the tungsten included as an essential component in Sandvik's products is derived from a mixture of primary and secondary (recycled) material, hence no specific due diligence to conclude exclusively recycled origin is required. Some applications contain tungsten exclusively from the so-called zinc reclaim process (PRZ) which, due to the underlying technology that requires cemented tungsten carbide as input, can only be fed by selected hard metal scrap, and hence is of 100 % recycled origin.

5. ACHIEVEMENTS AND CHALLENGES

Sandvik's work with responsible sourcing for 3TG and cobalt and related due diligence activities aim to increase supply chain transparency and mitigate potential risks while encouraging continuous improvement in supplier performance. Sandvik takes an active role in industry forums to promote responsible souring of minerals and develop common industry tools and standards to scale impact, including from conflictaffected and high-risk areas, either directly or through its subsidiaries. This includes memberships of the Responsible Minerals Initiative, the Cobalt Institute and The Tungsten Industry Conflict Minerals Council. Strengthening the due diligence management system and Sandvik's internal processes for responsible sourcing has been a key focus area in 2022. Going forward, Sandvik will continue to review its systems and processes on an annual basis and make improvements as necessary according to the OECD Due Diligence Guidance. An upcoming challenge will be for the different business areas within Sandvik to align and to carry out due diligence in a coordinated manner to avoid any duplication of efforts.

6. LOOKING FORWARD/ NEXT STEPS

Sandvik will continue to work on improving responsible sourcing for 3TG and cobalt and the related risk assessment and supply chain mitigation process to ensure that all suppliers meet Sandvik's requirements. For the yearly CMRT and CRT/EMRT analysis, a revised data validation process will be used starting in November 2022. Selected staff from each Business Area within Sandvik will participate in a training course in the autumn of 2022 to ensure that they have the capacity to apply the updated due diligence procedure. The purpose will be to educate purchasers about responsible sourcing of minerals and metals as well as presenting the updated processes and tools. Additionally, efforts will be made to improve the response rate from CMRT and CRT/EMRT suppliers by educating suppliers on how to respond to the supply chain surveys.

ANNEX: SMELTER AND REFINER LIST 2021

Standard Smelter Name	Smelter ID	Metal	Country Location
TANIOBIS Co., Ltd.	CID002544	Tantalum	Thailand
H.C. Starck Inc.	CID002548	Tantalum	United States of America
TANIOBIS Japan Co., Ltd.	CID002549	Tantalum	Japan
TANIOBIS Smelting GmbH & Co. KG	CID002550	Tantalum	Germany
H.C. Starck Tungsten GmbH	CID002541	Tungsten	Germany
Masan High-Tech Materials	CID002543	Tungsten	Viet Nam
Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CID002551	Tungsten	China
Wolfram Bergbau und Hutten AG	CID002044	Tungsten	Austria
Ningxia Orient Tantalum Industry Co., Ltd.	CID001277	Tantalum	China
Ulba Metallurgical Plant JSC	CID001969	Tantalum	Kazakhstan
Xiamen Tungsten Co., Ltd.	CID002082	Tungsten	China
Xiamen Tungsten (H.C.) Co., Ltd.	CID002320	Tungsten	China
Guangdong Xianglu Tungsten Co., Ltd.	CID000218	Tungsten	China
Jiangxi Gan Bei Tungsten Co., Ltd.	CID002321	Tungsten	China
Hunan Chenzhou Mining Co., Ltd.	CID000766	Tungsten	China
Hunan Shizhuyuan Nonferrous Metals Co., Ltd. Chenzhou	CID002513	Tungsten	China
Tungsten Products Branch			
Ganzhou Huaxing Tungsten Products Co., Ltd.	CID000875	Tungsten	China
Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CID002317	Tungsten	China
Telex Metals	CID001891	Tantalum	United States of America
Kennametal Huntsville	CID000105	Tungsten	United States of America
Global Tungsten & Powders Corp.	CID000568	Tungsten	United States of America
Ganzhou Seadragon W & Mo Co., Ltd.	CID002494	Tungsten	China
Jiangxi Yaosheng Tungsten Co., Ltd.	CID002316	Tungsten	China
A.L.M.T. Corp.	CID000004	Tungsten	Japan
Xinhai Rendan Shaoguan Tungsten Co., Ltd.	CID002095	Tungsten	China
XIMEI RESOURCES (GUANGDONG) LIMITED	CID000616	Tantalum	China
Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CID002512	Tantalum	China
JiuJiang JinXin Nonferrous Metals Co., Ltd.	CID000914	Tantalum	China
F&X Electro-Materials Ltd.	CID000460	Tantalum	China
Global Advanced Metals Boyertown	CID002557	Tantalum	United States of America
ACL Metais Eireli	CID002833	Tungsten	Brazil
Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CID002315	Tungsten	China
D Block Metals, LLC	CID002504	Tantalum	United States of America
Jiujiang Tanbre Co., Ltd.	CID000917	Tantalum	China
NPM Silmet AS	CID001200	Tantalum	Estonia
FIR Metals & Resource Ltd.	CID002505	Tantalum	China
Chongyi Zhangyuan Tungsten Co., Ltd.	CID000258	Tungsten	China
AMG Brasil	CID001076	Tantalum	Brazil
Changsha South Tantalum Niobium Co., Ltd.	CID000211	Tantalum	China
Exotech Inc.	CID000456	Tantalum	United States of America
Hengyang King Xing Lifeng New Materials Co., Ltd.	CID002492	Tantalum	China
Jiangxi Tuohong New Raw Material	CID002842	Tantalum	China
Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CID002506	Tantalum	China
Metallurgical Products India Pvt., Ltd.	CID001163	Tantalum	India
Mineracao Taboca S.A.	CID001175	Tantalum	Brazil
Mitsui Mining and Smelting Co., Ltd.	CID001192	Tantalum	Japan
Resind Industria e Comercio Ltda.	CID002707	Tantalum	Brazil
Solikamsk Magnesium Works OAO	CID001769	Tantalum	Russian Federation
XinXing HaoRong Electronic Material Co., Ltd.	CID002508	Tantalum	China
Yanling Jincheng Tantalum & Niobium Co., Ltd.	CID001522	Tantalum	China
China Molybdenum Tungsten Co., Ltd.	CID002641	Tungsten	China
Fujian Ganmin RareMetal Co., Ltd.	CID003401	Tungsten	China

Standard Smelter Name	Smelter ID	Metal	Country Location
Hunan Chunchang Nonferrous Metals Co., Ltd.	CID000769	Tungsten	China
Hunan Litian Tungsten Industry Co., Ltd.	CID003182	Tungsten	China
Hydrometallurg, JSC	CID002649	Tungsten	Russian Federation
Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CID002318	Tungsten	China
Lianyou Metals Co., Ltd.	CID003407	Tungsten	Taiwan, Province of China
Malipo Haiyu Tungsten Co., Ltd.	CID002319	Tungsten	China
Unecha Refractory metals plant	CID002724	Tungsten	Russian Federation
Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CID002830	Tungsten	China
Moliren Ltd.	CID002845	Tungsten	Russian Federation
Asia Tungsten Products Vietnam Ltd.	CID002502	Tungsten	Viet Nam
000 "Technolom" 2	CID003612	Tungsten	Russian Federation
Niagara Refining LLC	CID002589	Tungsten	United States of America
Taki Chemical Co., Ltd.	CID001869	Tantalum	Japan
KGETS Co., Ltd.	CID003388	Tungsten	Korea, Republic of
JSC "Kirovgrad Hard Alloys Plant"	CID003408	Tungsten	Russian Federation
NPP Tyazhmetprom LLC	CID003416	Tungsten	Russian Federation
Hubei Green Tungsten Co., Ltd.	CID003417	Tungsten	China
Kennametal Fallon	CID000966	Tunasten	United States of America
Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.	CID002313	Tunasten	China
Albasteel Industria e Comercio de Ligas Para Fundicao Ltd.	CID003427	Tunasten	Brazil
Japan New Metals Co., Ltd.	CID000825	Tunasten	Japan
QuantumClean	CID001508	Tantalum	United States of America
Asaka Riken Co., Ltd.	CID000092	Tantalum	Japan
Cronimet Brasil I tda	CID003468	Tunasten	Brazil
Euijan Jinxin Tungsten Co. Ltd	CID000499	Tungsten	China
Guangdong Rising Rare Metals-FO Materials Ltd	CID000291	Tantalum	China
H C. Starck Hermsdorf GmbH	CID002547	Tantalum	Germany
KEMET de Mexico	CID002539	Tantalum	Mexico
Global Advanced Metals Aizu	CID002558	Tantalum	Japan
Meta Materials	CID002847	Tantalum	North Macedonia Republic of
Hunan Chuangda Vanadium Tungsten Co. Ltd. Wuji	CID002579	Tunasten	China
Woltech Korea Co. I td	CID002843	Tunasten	Korea Bepublic of
Teiing (Vietnam) Tungsten Co. Ltd	CID001889	Tungsten	Viet Nam
Jiangxi Xianglu Tungsten Co. 1 td	CID002647	Tungsten	China
South-East Nonferrous Metal Company Limited of Hengyang City	CID002815	Tungsten	China
Philippine Chuangxin Industrial Co. Inc.	CID002827	Tungsten	Philippines
CNMC (Guangxi) PGMA Co. Ltd	CID000281	Tungsten	China
000 "Technolom" 1	CID003614	Tungsten	Russian Federation
TANIOBIS GmbH	CID002545	Tantalum	Germany
Ganzhou Haichuang Tungsten Co. Ltd	CID002645	Tunasten	China
TANIOBIS Smelting GmbH & Co. KG	CID002542	Tunasten	Germany
Fenix Metals	CID000468	Tin	Poland
Minsur	CID001182	Tin	Peru
Alpha	CID000292	Tin	United States of America
Geiju Non-Ferrous Metal Processing Co. 1 td	CID000538	Tin	China
Malaysia Smelting Corporation (MSC)	CID001105	Tin	Malaysia
PT Timah Thk Mentok	CID001482	Tin	Indonesia
PT Timah Thk Kundur	CID001477	Tin	Indonesia
PT Refined Bangka Tin	CID001460	Tin	Indonesia
PT Mitra Stanja Prima	CID001453	Tin	Indonesia
Operaciones Metalurgicas S A	CID001337	Tin	Bolivia (Plurinational State of)
Mitsubishi Materials Corporation	CID001191	Tin	Japan
Mineracao Taboca S.A.	CID001173	Tin	Brazil

Standard Smelter Name	Smelter ID	Metal	Country Location
Rui Da Hung	CID001539	Tin	Taiwan, Province of China
Thaisarco	CID001898	Tin	Thailand
White Solder Metalurgia e Mineracao Ltda.	CID002036	Tin	Brazil
Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CID002158	Tin	China
Metallo Belgium N.V.	CID002773	Tin	Belgium
Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CID003116	Tin	China
PT ATD Makmur Mandiri Jaya	CID002503	Tin	Indonesia
Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CID001908	Tin	China
Tin Smelting Branch of Yunnan Tin Co., Ltd.	CID002180	Tin	China
Metalor Technologies S.A.	CID001153	Gold	Switzerland
SAXONIA Edelmetalle GmbH	CID002777	Gold	Germany
Heraeus Germany GmbH Co. KG	CID000711	Gold	Germany
Chimet S.p.A.	CID000233	Gold	Italy
T.C.A S.p.A	CID002580	Gold	Italy
Metalor Technologies (Hong Kong) Ltd.	CID001149	Gold	China
Metalor Technologies (Singapore) Pte., Ltd.	CID001152	Gold	Singapore
Metalor Technologies (Suzhou) Ltd.	CID001147	Gold	China
Metalor USA Refining Corporation	CID001157	Gold	United States of America
Jiangxi Copper Co., Ltd.	CID000855	Gold	China
Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CID001622	Gold	China
Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	CID002779	Gold	Austria
Artek LLC	CID003553	Tungsten	Russian Federation
Fujian Xinlu Tungsten Co., Ltd.	CID003609	Tungsten	China
Umicore Olen	CID003228	Cobalt	Belgium
Jingmen GEM Co., Ltd.	CID003378	Cobalt	China
Umicore Finland Oy	CID003226	Cobalt	Finland
Nanjing Hanrui Cobalt	CID003252	Cobalt	China
Kamoto Copper Company	CID003261	Cobalt	Congo, Democratic Republic of The
Gem (Jiangsu) Cobalt Industry Co., Ltd.	CID003209	Cobalt	China
Quzhou Huayou Cobalt New Material Co., Ltd.	CID003255	Cobalt	China
New Era Group Zhejiang Zhongneng Cycle Technology Co., Ltd.	CID003398	Cobalt	China
Ganzhou Tengyuan Cobalt New Material Co., Ltd.	CID003212	Cobalt	China
Glencore Nikkelverk Refinery	CID003403	Cobalt	Norway
Norilsk Nickel Harjavalta Oy	CID003390	Cobalt	Finland
Murrin Murrin Nickel Cobalt Plant	CID003406	Cobalt	Australia
JSC Kolskaya Mining and Metallurgical Company (Kola MMC)	CID003233	Cobalt	Russian Federation
Sumitomo Metal Mining	CID003955	Cobalt	Japan
Gangzhou Yi Hao Umicore Industry Co.	CID003227	Cobalt	China
Zhejiang Huayou Cobalt Company Limited	CID003225	Cobalt	China
Chemaf Etoile	CID003264	Cobalt	Congo, Democratic Republic of The
Mine de Bou-Azzer	CID003279	Cobalt	Morocco
Compagnie de Tifnout Tiranimine	CID003280	Cobalt	Morocco
Guangdong Jiana Energy Technology Co., Ltd.	CID003291	Cobalt	China
SungEel HiTech Co., Ltd.	CID003338	Cobalt	Korea, Republic Of
Hunan CNGR New Energy Science & Technology Co., Ltd.	CID003411	Cobalt	China
Chemaf Usoke	CID003423	Cobalt	Congo, Democratic Republic of The
CoreMax Corporation	CID003473	Cobalt	Taiwan, Province of China
Fort Saskatchewan Metals Facility	CID003242	Cobalt	Canada
Shu Powders Ltd.	CID003309	Cobalt	South Africa
Mutanda Mining	CID003301	Cobalt	Congo, Democratic Republic of The
Niihama Nickel Refinery, Sumitomo Metal Mining	CID003278	Cobalt	Japan

INFO@SANDVIK.COM HOME.SANDVIK

