

# **Teledyne Technologies Incorporated**

## **Conflict Minerals Report**

**Calendar Year Ending December 31, 2015**

**May 31, 2016**

### Introduction

Pursuant to Section 13(p) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and related rules and guidance promulgated by the Securities and Exchange Commission (the “SEC”), including the SEC’s Statement dated April 29, 2014 (the “Conflict Minerals Rule”), if columbite-tantalite (tantalum), cassiterite (tin), gold or wolframite (tungsten) (“conflict minerals” or “3TG”) are necessary to the functionality or production of a product manufactured by a registrant or contracted by the registrant to be manufactured, the registrant must conduct in good faith a reasonable country of origin inquiry regarding those conflict minerals that is reasonably designed to determine whether any of the conflict minerals originated in the Democratic Republic of the Congo or an adjoining country (the “Covered Countries”).

This Conflict Minerals Report (this “Report”) (1) describes the reasonable country of origin inquiry (“RCOI”) and subsequent due diligence efforts undertaken by Teledyne Technologies Incorporated (the “Company”) to determine whether in the 2015 calendar year the conflict minerals necessary to the functionality or production of a product manufactured by the Company or contracted by the Company to be manufactured originated in the Covered Countries and (2) provides additional disclosure required by the Conflict Minerals Rule.

### Company Overview

The Company provides enabling technologies for industrial growth markets. The Company has evolved from a company that was primarily focused on aerospace and defense to one that serves multiple markets that require advanced technology and high reliability. These markets include deepwater oil and gas exploration and production, oceanographic research, air and water quality environmental monitoring, electronics design and development, factory automation and medical imaging. The Company’s products include monitoring and control instrumentation for marine and environmental applications, harsh environment interconnects, electronic test and

measurement equipment, digital imaging sensors and cameras, aircraft information management systems, and defense electronics and satellite communication subsystems. The Company also supplies engineered systems for defense, space, environmental and energy applications.

### Conflict Minerals Policy

As part of the Company's due diligence efforts, the Company has adopted a statement on Conflict Minerals which is available at: <http://www.teledyne.com/aboutus/ethics.asp>

### Reasonable Country of Origin Inquiry (RCOI)

After the reasonable country of origin inquiry the Company had reason to believe that its necessary conflict minerals may have originated in the Covered Countries and had reason to believe that they may not be from recycled or scrap sources. In accordance with the Conflict Minerals Rule, the Company conducted due diligence on the source and chain of custody of those conflict minerals. The due diligence approach followed by the Company is intended to meet the criteria set forth in the Organization for Economic Co-operation and Development ("OECD") Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, an internationally recognized due diligence framework, and the related Supplements for gold, tin, tantalum and tungsten (the "OECD Guidance").

### Description of the RCOI

Due to the wide variety and high mix of products manufactured and sold by the Company, the Company conducted its due diligence with its direct suppliers. In determining which suppliers to survey in 2015, the Company focused on suppliers of materials, parts and components. The Company identified 4,137 suppliers that in the aggregate were responsible for the top 80% of the total annual spending on materials, parts and components at each of the Company's business units in the fiscal year ended December 28, 2014 (each such supplier an "In-Scope Supplier"). In-Scope Suppliers also included those suppliers that did not fall within the top 80% of a business unit's annual spend, but which were known by the business unit with reasonable certainty to provide materials, parts or components that contain Conflict Minerals.

The Company, with the assistance of Assent Compliance ("Assent"), attempted to contact all of the In-Scope Suppliers and provide each with a copy of the Company's Statement on Conflict Minerals, a Conflict

Minerals Reporting Template version 4.01 (“CMRT”) and instructions on how to complete the CMRT. The CMRT is a standardized reporting template developed by the Conflict-Free Sourcing Initiative (“CFSI”) that facilitates the transfer of information through the supply chain regarding mineral country of origin and smelters and refiners (“SORs”) being utilized. In-Scope Suppliers were instructed to return a completed CMRT to the Company within a certain time period after receipt.

Assent contacted non-responsive suppliers by email a minimum of three times and then by phone a minimum of two to three times. Communications include training and education on the completion of the CMRT form as well as access to a Supplier Resource Center designed to alleviate any remaining confusion with suppliers. All communications were monitored and tracked in Assent's system for future reporting and transparency.

Teledyne’s Conflict Minerals program includes automated data validation on all submitted CMRTs. The goal of data validation is to increase the accuracy of submissions and identify any contradictory answers in the CMRT. All submitted CMRT forms are accepted and classified as valid or invalid so that data is still retained. Suppliers are contacted in regards to invalid forms and are encouraged to resubmit a valid form.

On the basis of the responses to the Company’s RCOI, the Company is unable to determine that 3TGs necessary to the functionality or production of the Company’s products did not originate in the DRC or any of the Covered Countries. Accordingly, the Company undertook the measures described below to assess the due diligence practices of the SORs listed on its unique smelter list that were known or reasonably believed to have sourced from the DRC or that had unknown sourcing.

## Design of Due Diligence Measures

### Due Diligence Process

The Company established a Conflict Minerals compliance program that is designed to conform, in all material respects, to the framework in the OECD Guidance.

#### **1 Establish Strong Company Management System Internal Team**

##### **1.1 Adopt and commit to a supply chain plan for minerals originating from conflict-affected and high-risk areas**

In 2013, the Company adopted an internal Conflict Minerals Assessment Plan (the “Assessment Plan”) incorporating many of the standards set forth in the then current version of the OECD Guidance.

## **1.2 Structure internal management systems to support supply chain due diligence**

The Company has established a management system with respect to the Rule and the obligations thereof. The Company’s management system includes a cross-functional team, the Conflict Minerals Team, which is sponsored by a Conflict Minerals Governance Committee consisting of the Company’s Senior Vice President and General Counsel, the Company’s Chief Operating Officer, and the Company’s Senior Vice President and Chief Financial Officer.. The Conflict Minerals Team is responsible for implementing the Company’s conflict minerals compliance program and is led by the Associate General Counsel who acts as the conflict minerals coordinator. The Conflict Minerals Governance Committee is briefed about the results of the Conflict Minerals Team’s progress and due diligence efforts on a periodic basis.

## **1.3 Establish a system of controls and transparency over the mineral supply chain**

While a portion of the Company’s direct suppliers are also Exchange Act reporting companies which are subject to and knowledgeable about the Conflict Minerals Rule, the Company also has many other suppliers and distributors that are not Exchange Act reporting companies that require additional training to understand the requirements of the Conflict Minerals Rule.

Internal controls include the Company’s on-going initiative of integrating conflict minerals related requirements in its supply agreements that require disclosure of 3TGsconflict minerals.

The Company developed a record retention requirement for information relating to the management of its conflict minerals compliance process. All relevant records will be retained for a period of 5 years. In addition, Assent retains all information gathered during the supply survey portion of the Company’s conflict minerals program for the same 5 year period.

## **1.4 Strengthen company engagement with suppliers**

With respect to the OECD requirement to strengthen engagement with suppliers, the Company has utilized the CMRT version 4.01 and the Assent Compliance Manager web-based reporting tool for collecting conflict minerals declarations from the Company’s supplier base. The use of these tools has allowed the Company to assist

its suppliers in understanding the Company's expectations and requirements and increase the rate of responses the Company has received from its suppliers to the Company's survey requests.

Additionally, as identified earlier, the Company's procurement organization continues to integrate contract provisions related to conflict minerals disclosure requirements language into new supply agreements or renewals of existing supply agreements during the course of negotiations. Accordingly, the Company is continuing its attempts to confirm suppliers have implemented processes to identify the origin of 3TGs.

### **1.5 Establish a company level grievance mechanism**

The Company has established a confidential Corporate Ethics/Help Line, with the theme, "Take The Right Action." The Ethics/Help line is available to all Company employees, as well as concerned individuals outside the company. Violations of Company policies, including those related to conflict minerals, may be reported via this Ethics/Help Line. The toll free help line number is 1-877-666-6968.

## **2 Identify and assess risk in the supply chain**

In accordance with OECD Guidelines, it is important to understand risk levels associated with conflict minerals in the supply chain. Smelters that are not certified as DRC-Conflict Free by third party sources such as the CFSI or the London Bullion Market Association ("LBMA") Responsible Gold Programme, pose a significant risk. Assent rates the risk of SORs as High, Medium or Low. This rating is based on various factors, including whether the SOR has been certified conflict free, has committed to a third-party audit, and the smelter's geographic location, including proximity to the Covered Countries.

Assent verified, to the best of its knowledge, whether the metals processors identified by each supplier on its CMRT are actually SORs or recyclers of 3TGs by comparing facilities reported by suppliers to the CFSI Standard Smelter List and conducting its own independent research. If an SOR was not certified by an internationally-recognized scheme, Assent attempted to contact the SOR to gather more information about its sourcing practices. In addition, internet research was performed to determine whether there was any publicly available sources of information regarding the SOR's sourcing.

Assent calculates supplier risk based on the chances that a supplier provides 3TGs that may originate from Non-Conflict Free sources. The value of this risk is calculated based on the risk ratings of the smelters declared by that Supplier on their CMRT.

Additionally, suppliers are evaluated on program strength (further assisting in identifying risk in the supply chain). Evaluating and tracking the strength of the program can assist in making key risk mitigation decisions as the program progresses. The criteria used to evaluate the strength of the supplier's program are:

- Does the supplier have a policy in place that includes DRC conflict-free sourcing?
- Has the supplier implemented due diligence measures for conflict-free sourcing?
- Does the supplier verify due diligence information received from its suppliers?
- Does the supplier verification process include corrective action management?

Based on a supplier's answers to these criteria, the supplier's program is deemed to be either strong or weak.

As part of the Company's Assessment Plan and to ensure suppliers understand the Company's expectations, Assent provides video and written training on conflict minerals and the CMRT. This includes instructions on completing the form, and one-on-one email and phone discussions with supplier personnel.

Tracing materials back to their mine of origin is a complex aspect of responsible sourcing in the Company's supply chain. The Company determined that seeking information about 3TG smelters and refiners in its supply chain represents the most reasonable effort the Company can make to determine the mines or locations of origin of the 3TGs in its supply chain. This was done by adopting methodology outlined by the EICC and programs and outreach initiatives and requiring the Company's suppliers to report to the Company using the CMRT. Through this industry joint effort, the Company made reasonable determination of the mines or locations of origin of the 3TGs in its supply chain.

### **3. Design and implement a strategy to respond to identified risks**

The Company has developed and continues to use a risk management approach to implement due diligence activities concerning 3TGs and the potential presence of conflict minerals.

The Company's current strategy to respond to supply chain risks, as described in the Company's Assessment Plan, is that if the Company become aware of a supplier whose supply chain includes 3TGs that are not conflict free, the Company will take appropriate steps to address the situation in a timely manner, including supplier education and/or reassessment of the supplier relationship. To date, the Company has found no instances where it was necessary to terminate a contract or find a replacement material or supplier.

If suppliers did not provide information as requested, or the data did not appear to be reliable or was conflicting, the Conflict Minerals Team developed a plan to send additional communications, offer additional education, or, if necessary, have the Company's procurement organization engage with the supplier.

#### **4. Carry out independent third-party audit of the supply chain due diligence at identified points in the supply chain**

As a downstream purchaser of conflict minerals, the Company's due diligence process is based on the necessity of relying on data obtained from its direct suppliers. The Company also relies on information collected and provided by other external audit programs. As such, the Company has not conducted third-party audits of any smelters or refiners.

#### **5. Report on Supply Chain Due Diligence**

This Conflict Minerals Report is on file with the SEC and is publicly available on the Company's website at <http://teledyne.com/aboutus/ethics.asp>.

#### Results of Due Diligence

The Company, through Assent's software platform, surveyed a total of 4,137 suppliers. Of the 2,177 responses, 219 were determined to be out of scope, 157 were deemed invalid and marked for follow-up, and 1,801 were accepted as complete. This is an overall response rate of 53%.

#### Smelters or Refiners

The large majority of the responses received from the supplier survey provided data at a company or divisional level or were unable to specify the smelters or refiners used for components supplied to the Company. The Company was therefore unable to determine whether the 3TGs reported by the suppliers were contained in components or parts supplied to the Company. Furthermore, suppliers did not always provide smelter lists nor were the smelter lists consistently completed with smelter identification numbers, and therefore the Company was unable to validate that any of these smelters or refiners are actually in its supply chain.

The current efforts focus on gathering smelter information via the CMRT and, as the program progresses, requiring full completion of all necessary smelter identification information which will enable the validation and disclosure of the smelters as well as the tracing of 3TGs to their location of origin. Seeking information about 3TG smelters and refiners in the Company's supply chain represents the most reasonable effort the Company can make to determine the mines or locations of origin of 3TGs in its supply chain.

Certain of the responses provided by suppliers to the CMRT did include the names of facilities listed by the suppliers as smelters or refiners. The Company does not typically have a direct relationship with 3TG smelters and refiners and does not perform or direct audits of these entities within its supply chain. Assent compared facilities listed in the supplier responses to the list of smelters maintained by the CFSI and the LBMA and, if a supplier indicated that the facility was certified as conflict-free, confirmed that the name was listed by CFSI. Based on the smelter lists provided by suppliers via the CMRTs, the Company is aware that 214 smelters are certified conflict-free, and a number of other smelters are active in the CFSP third-party audit process.

As of May 2, 2016, the Company has validated 320 smelters or refiners and is working to validate the additional smelter and refiner entries from the submitted CMRTs. The table set forth on Annex 1 to this Report lists the valid smelters identified by suppliers the Company surveyed. The table set forth on Annex 2 lists the countries from which the minerals processed by the SORs in Annex 1 are believed to have originated. As noted above, since the Company's suppliers generally provided facility information via the CMRT at the company or divisional level, and generally did not limit their CMRT responses to facility information for 3TGs in products they supply to the Company specifically, 3TGs contained in the Company's products did not necessarily originate in the facilities listed in Annex 1 or the countries listed in Annex 2.

Many suppliers are still unable to provide the smelters or refiners used for materials supplied to the Company. Furthermore, many of the responses provided at the company or division level indicated an "unknown" status in terms of determining the origin of 3TGs.

#### Risk Mitigation Steps

Year four of the Company's conflict minerals program will continue to focus on vetting smelter data, which may include the following actions:

- Working with suppliers to move to version 4.10 of the CMRT where new smelter identification numbers have been assigned;



- Requiring the use of smelter identification numbers;
- Requesting that suppliers connect any identified smelters with the products and parts the suppliers supply to the Company; and
- Comparing smelters reported by suppliers on the CMRT to the Conflict-Free Sourcing Initiative's list of smelters.

The Company intends to take additional steps to improve its due diligence process and to further mitigate any risk that the necessary conflict minerals in its products could benefit armed groups in the Covered Countries, which may include the following:

- Include a conflict minerals flow-down clause in new or renewed supplier contracts;
- Refine the number of suppliers requested to supply information;
- Engage with suppliers and direct them to training resources to increase the response rate and improve the content of the supplier survey responses; and
- Engage any suppliers found to be providing the Company with conflict minerals from sources that support conflict in the Covered Countries to establish an alternative source of conflict minerals that does not support such conflict.

In accordance with the Conflict Minerals Rule, a copy of this Report will be posted on the Company's website at <http://teledyne.com/aboutus/ethics.asp>.

## Annex 1

The following is a list of verified SORs that the suppliers surveyed by the Company reported as being in their supply chains. An affirmative answer in the 'Conflict-Free?' column indicates completion of the CFPSI's Conflict-Free Smelter Program third-party audit certifying conflict-free sourcing.

<b>Metal</b>	<b>Standard Smelter Name</b>	<b>Facility Location</b>	<b>Conflict-Free?</b>
Gold	Advanced Chemical Company	UNITED STATES	
Gold	Aida Chemical Industries Co., Ltd.	JAPAN	Yes
Gold	Aktyubinsk Copper Company TOO	KAZAKHSTAN	
Gold	Al Etihad Gold Refinery DMCC	UNITED ARAB EMIRATES	
Gold	Allgemeine Gold-und Silberscheideanstalt A.G.	GERMANY	Yes
Gold	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN	
Gold	AngloGold Ashanti Córrego do Sítio Mineração	BRAZIL	Yes
Gold	Argor-Heraeus SA	SWITZERLAND	Yes
Gold	Asahi Pretec Corporation	JAPAN	Yes
Gold	Asahi Refining Canada Limited	CANADA	Yes
Gold	Asahi Refining USA Inc.	UNITED STATES	Yes
Gold	Asaka Riken Co., Ltd.	JAPAN	Yes
Gold	Atasay Kuyumculuk Sanayi Ve Ticaret A.S.	TURKEY	
Gold	Aurubis AG	GERMANY	Yes
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES	Yes
Gold	Bauer Walser AG	GERMANY	
Gold	Boliden AB	SWEDEN	Yes
Gold	C. Hafner GmbH + Co. KG	GERMANY	Yes
Gold	Caridad	MEXICO	
Gold	CCR Refinery - Glencore Canada Corporation	CANADA	Yes
Gold	Cendres + Métaux SA	SWITZERLAND	
Gold	Chimet S.p.A.	ITALY	Yes
Gold	Chugai Mining	JAPAN	
Gold	Daejin Indus Co., Ltd.	KOREA, REPUBLIC OF	
Gold	Daye Non-Ferrous Metals Mining Ltd.	CHINA	
Gold	Do Sung Corporation	KOREA, REPUBLIC OF	
Gold	DODUCO GmbH	GERMANY	Yes
Gold	Dowa	JAPAN	Yes
Gold	Eco-System Recycling Co., Ltd.	JAPAN	Yes
Gold	Elemental Refining, LLC	UNITED STATES	Yes
Gold	Emirates Gold DMCC	UNITED ARAB EMIRATES	Yes
Gold	Faggi Enrico S.p.A.	ITALY	
Gold	Fidelity Printers and Refiners Ltd.	ZIMBABWE	
Gold	Gansu Seemine Material Hi-Tech Co., Ltd.	CHINA	
Gold	Geib Refining Corporation	UNITED STATES	

Gold	Great Wall Precious Metals Co., Ltd. of CBPM	CHINA	
Gold	Guangdong Jinding Gold Limited	CHINA	
Gold	Guoda Safina High-Tech Environmental Refinery Co., Ltd.	CHINA	
Gold	Hangzhou Fuchunjiang Smelting Co., Ltd.	CHINA	
Gold	Heimerle + Meule GmbH	GERMANY	Yes
Gold	Heraeus Ltd. Hong Kong	CHINA	Yes
Gold	Heraeus Precious Metals GmbH & Co. KG	GERMANY	Yes
Gold	Hunan Chenzhou Mining Co., Ltd.	CHINA	
Gold	Hwasung CJ Co., Ltd.	KOREA, REPUBLIC OF	
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Company Limited	CHINA	Yes
Gold	Ishifuku Metal Industry Co., Ltd.	JAPAN	Yes
Gold	Istanbul Gold Refinery	TURKEY	Yes
Gold	Japan Mint	JAPAN	Yes
Gold	Jiangxi Copper Company Limited	CHINA	Yes
Gold	JSC Ekaterinburg Non-Ferrous Metal Processing Plant	RUSSIAN FEDERATION	Yes
Gold	JSC Uralelectromed	RUSSIAN FEDERATION	Yes
Gold	JX Nippon Mining & Metals Co., Ltd.	JAPAN	Yes
Gold	Kaloti Precious Metals	UNITED ARAB EMIRATES	
Gold	Kazakhmys Smelting LLC	KAZAKHSTAN	
Gold	Kazzinc	KAZAKHSTAN	Yes
Gold	Kennecott Utah Copper LLC	UNITED STATES	Yes
Gold	KGHM Polska Miedź Spółka Akcyjna	POLAND	
Gold	Kojima Chemicals Co., Ltd.	JAPAN	Yes
Gold	Korea Metal Co., Ltd.	KOREA, REPUBLIC OF	
Gold	Korea Zinc Co. Ltd.	KOREA, REPUBLIC OF	
Gold	Kyrgyzaltyn JSC	KYRGYZSTAN	
Gold	L'azurde Company For Jewelry	SAUDI ARABIA	
Gold	Lingbao Gold Company Limited	CHINA	
Gold	Lingbao Jinyuan Tonghui Refinery Co., Ltd.	CHINA	
Gold	LS-NIKKO Copper Inc.	KOREA, REPUBLIC OF	Yes
Gold	Luoyang Zijin Yinhui Gold Refinery Co., Ltd.	CHINA	
Gold	Materion	UNITED STATES	Yes
Gold	Matsuda Sangyo Co., Ltd.	JAPAN	Yes
Gold	Metahub Industries Sdn. Bhd.	MALAYSIA	
Gold	Metalor Technologies (Hong Kong) Ltd.	CHINA	Yes
Gold	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE	Yes
Gold	Metalor Technologies (Suzhou) Ltd.	CHINA	
Gold	Metalor Technologies SA	SWITZERLAND	Yes
Gold	Metalor USA Refining Corporation	UNITED STATES	Yes

Gold	METALÚRGICA MET-MEX PEÑALES, S.A. DE C.V	MEXICO	Yes
Gold	Mitsubishi Materials Corporation	JAPAN	Yes
Gold	Mitsui Mining and Smelting Co., Ltd.	JAPAN	Yes
Gold	MMTC-PAMP India Pvt., Ltd.	INDIA	Yes
Gold	Morris and Watson	NEW ZEALAND	
Gold	Moscow Special Alloys Processing Plant	RUSSIAN FEDERATION	Yes
Gold	Nadir Metal Rafineri San. Ve Tic. A.Ş.	TURKEY	Yes
Gold	Navoi Mining and Metallurgical Combinat	UZBEKISTAN	
Gold	Nihon Material Co., Ltd.	JAPAN	Yes
Gold	Ögussa Österreichische Gold- und Silber-Scheideanstalt GmbH	AUSTRIA	Yes
Gold	Ohura Precious Metal Industry Co., Ltd.	JAPAN	Yes
Gold	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	RUSSIAN FEDERATION	Yes
Gold	OJSC Kolyma Refinery	RUSSIAN FEDERATION	
Gold	OJSC Novosibirsk Refinery	RUSSIAN FEDERATION	Yes
Gold	PAMP SA	SWITZERLAND	Yes
Gold	Penglai Penggang Gold Industry Co., Ltd.	CHINA	
Gold	Prioksky Plant of Non-Ferrous Metals	RUSSIAN FEDERATION	Yes
Gold	PT Aneka Tambang (Persero) Tbk	INDONESIA	Yes
Gold	PX Précinox SA	SWITZERLAND	Yes
Gold	Rand Refinery (Pty) Ltd.	SOUTH AFRICA	Yes
Gold	Republic Metals Corporation	UNITED STATES	Yes
Gold	Royal Canadian Mint	CANADA	Yes
Gold	SAAMP	FRANCE	
Gold	Sabin Metal Corp.	UNITED STATES	
Gold	Samduck Precious Metals	KOREA, REPUBLIC OF	
Gold	SAMWON Metals Corp.	KOREA, REPUBLIC OF	
Gold	SAXONIA Edelmetalle GmbH	GERMANY	
Gold	Schone Edelmetaal B.V.	NETHERLANDS	Yes
Gold	SEMPSA Joyería Platería SA	SPAIN	Yes
Gold	Shandong Tiancheng Biological Gold Industrial Co., Ltd.	CHINA	
Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA	Yes
Gold	Sichuan Tianze Precious Metals Co., Ltd.	CHINA	Yes
Gold	Singway Technology Co., Ltd.	TAIWAN	Yes
Gold	So Accurate Group, Inc.	UNITED STATES	
Gold	SOE Shyolkovsky Factory of Secondary Precious Metals	RUSSIAN FEDERATION	Yes
Gold	Solar Applied Materials Technology Corp.	TAIWAN	Yes
Gold	Sudan Gold Refinery	SUDAN	
Gold	Sumitomo Metal Mining Co., Ltd.	JAPAN	Yes

Gold	T.C.A S.p.A	ITALY	Yes
Gold	Tanaka Kikinzoku Kogyo K.K.	JAPAN	Yes
Gold	The Refinery of Shandong Gold Mining Co., Ltd.	CHINA	Yes
Gold	Tokuriki Honten Co., Ltd.	JAPAN	Yes
Gold	Tongling Nonferrous Metals Group Co., Ltd.	CHINA	
Gold	Tony Goetz NV	BELGIUM	
Gold	Torecom	KOREA, REPUBLIC OF	
Gold	Umicore Brasil Ltda.	BRAZIL	Yes
Gold	Umicore Precious Metals Thailand	THAILAND	Yes
Gold	Umicore SA Business Unit Precious Metals Refining	BELGIUM	Yes
Gold	United Precious Metal Refining, Inc.	UNITED STATES	Yes
Gold	Valcambi SA	SWITZERLAND	Yes
Gold	Western Australian Mint trading as The Perth Mint	AUSTRALIA	Yes
Gold	WIELAND Edelmetalle GmbH	GERMANY	
Gold	Yamamoto Precious Metal Co., Ltd.	JAPAN	Yes
Gold	Yokohama Metal Co., Ltd.	JAPAN	Yes
Gold	Yunnan Copper Industry Co., Ltd.	CHINA	
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA	Yes
Gold	Zijin Mining Group Co., Ltd. Gold Refinery	CHINA	Yes
Tantalum	Avon Specialty Metals Ltd	UNITED KINGDOM	
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	CHINA	Yes
Tantalum	Conghua Tantalum and Niobium Smeltry	CHINA	Yes
Tantalum	D Block Metals, LLC	UNITED STATES	Yes
Tantalum	Duoluoshan	CHINA	Yes
Tantalum	E.S.R. Electronics	UNITED STATES	
Tantalum	Exotech Inc.	UNITED STATES	Yes
Tantalum	F&X Electro-Materials Ltd.	CHINA	Yes
Tantalum	FIR Metals & Resource Ltd.	CHINA	Yes
Tantalum	Global Advanced Metals Aizu	JAPAN	Yes
Tantalum	Global Advanced Metals Boyertown	UNITED STATES	Yes
Tantalum	Guangdong Zhiyuan New Material Co., Ltd.	CHINA	Yes
Tantalum	Guizhou Zhenhua Xinyun Technology Ltd., Kaili branch	CHINA	
Tantalum	H.C. Starck Co., Ltd.	THAILAND	Yes
Tantalum	H.C. Starck GmbH Goslar	GERMANY	Yes
Tantalum	H.C. Starck GmbH Laufenburg	GERMANY	Yes
Tantalum	H.C. Starck Hermsdorf GmbH	GERMANY	Yes
Tantalum	H.C. Starck Inc.	UNITED STATES	Yes
Tantalum	H.C. Starck Ltd.	JAPAN	Yes
Tantalum	H.C. Starck Smelting GmbH & Co.KG	GERMANY	Yes
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA	Yes
Tantalum	Hi-Temp Specialty Metals, Inc.	UNITED STATES	Yes
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA	Yes

Tantalum	Jiangxi Tuohong New Raw Material	CHINA	Yes
Tantalum	JiuJiang JinXin Nonferrous Metals Co., Ltd.	CHINA	Yes
Tantalum	Jiujiang Tanbre Co., Ltd.	CHINA	Yes
Tantalum	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA	Yes
Tantalum	KEMET Blue Metals	MEXICO	Yes
Tantalum	KEMET Blue Powder	UNITED STATES	Yes
Tantalum	King-Tan Tantalum Industry Ltd.	CHINA	Yes
Tantalum	LSM Brasil S.A.	BRAZIL	Yes
Tantalum	Metallurgical Products India Pvt., Ltd.	INDIA	Yes
Tantalum	Mineração Taboca S.A.	BRAZIL	Yes
Tantalum	Mitsui Mining & Smelting	JAPAN	Yes
Tantalum	Molycorp Silmet A.S.	ESTONIA	Yes
Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA	Yes
Tantalum	Plansee SE Liezen	AUSTRIA	Yes
Tantalum	Plansee SE Reutte	AUSTRIA	Yes
Tantalum	QuantumClean	UNITED STATES	Yes
Tantalum	Resind Indústria e Comércio Ltda.	BRAZIL	Yes
Tantalum	RFH Tantalum Smeltry Co., Ltd.	CHINA	Yes
Tantalum	Solikamsk Magnesium Works OAO	RUSSIAN FEDERATION	Yes
Tantalum	Taki Chemicals	JAPAN	Yes
Tantalum	Telex Metals	UNITED STATES	Yes
Tantalum	Tranzact, Inc.	UNITED STATES	Yes
Tantalum	Ulba Metallurgical Plant JSC	KAZAKHSTAN	Yes
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.	CHINA	Yes
Tantalum	Yichun Jin Yang Rare Metal Co., Ltd.	CHINA	Yes
Tantalum	Zhuzhou Cemented Carbide	CHINA	Yes
Tin	Alpha	UNITED STATES	Yes
Tin	An Thai Minerals Company Limited	VIET NAM	
Tin	An Vinh Joint Stock Mineral Processing Company	VIET NAM	
Tin	Chenzhou Yun Xiang mining limited liability company	CHINA	
Tin	China Tin Group Co., Ltd.	CHINA	Yes
Tin	CNMC (Guangxi) PGMA Co., Ltd.	CHINA	
Tin	Cooperativa Metalurgica de Rondônia Ltda.	BRAZIL	Yes
Tin	CV Ayi Jaya	INDONESIA	Yes
Tin	CV Dua Sekawan	INDONESIA	
Tin	CV Gita Pesona	INDONESIA	Yes
Tin	CV Serumpun Sebalai	INDONESIA	Yes
Tin	CV Tiga Sekawan	INDONESIA	
Tin	CV United Smelting	INDONESIA	Yes
Tin	CV Venus Inti Perkasa	INDONESIA	Yes
Tin	Dowa	JAPAN	Yes
Tin	Electro-Mechanical Facility of the Cao Bang Minerals & Metallurgy Joint Stock Company	VIET NAM	
Tin	Elmet S.L.U. (Metallo Group)	SPAIN	Yes
Tin	EM Vinto	BOLIVIA	Yes

Tin	Estanho de Rondônia S.A.	BRAZIL	
Tin	Feinhütte Halsbrücke GmbH	GERMANY	
Tin	Fenix Metals	POLAND	Yes
Tin	Gejiu Fengming Metallurgy Chemical Plant	CHINA	
Tin	Gejiu Kai Meng Industry and Trade LLC	CHINA	
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA	Yes
Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA	
Tin	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA	
Tin	Guanyang Guida Nonferrous Metal Smelting Plant	CHINA	
Tin	HuiChang Hill Tin Industry Co., Ltd.	CHINA	
Tin	Huichang Jinshunda Tin Co., Ltd.	CHINA	
Tin	Jiangxi Ketai Advanced Material Co., Ltd.	CHINA	Yes
Tin	Linwu Xianggui Ore Smelting Co., Ltd.	CHINA	
Tin	Magnu's Minerai's Metais e Ligas Ltda.	BRAZIL	Yes
Tin	Malaysia Smelting Corporation (MSC)	MALAYSIA	Yes
Tin	Melt Metais e Ligas S/A	BRAZIL	Yes
Tin	Metahub Industries Sdn. Bhd.	MALAYSIA	
Tin	Metallic Resources, Inc.	UNITED STATES	Yes
Tin	Metallo-Chimique N.V.	BELGIUM	Yes
Tin	Mineração Taboca S.A.	BRAZIL	Yes
Tin	Minsur	PERU	Yes
Tin	Mitsubishi Materials Corporation	JAPAN	Yes
Tin	Nankang Nanshan Tin Manufactory Co., Ltd.	CHINA	
Tin	Nghe Tinh Non-Ferrous Metals Joint Stock Company	VIET NAM	
Tin	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND	Yes
Tin	O.M. Manufacturing Philippines, Inc.	PHILIPPINES	Yes
Tin	Operaciones Metalurgical S.A.	BOLIVIA	Yes
Tin	Phoenix Metal Ltd.	RWANDA	
Tin	PT Alam Lestari Kencana	INDONESIA	
Tin	PT Aries Kencana Sejahtera	INDONESIA	Yes
Tin	PT Artha Cipta Langgeng	INDONESIA	Yes
Tin	PT ATD Makmur Mandiri Jaya	INDONESIA	Yes
Tin	PT Babel Inti Perkasa	INDONESIA	Yes
Tin	PT Bangka Kudai Tin	INDONESIA	
Tin	PT Bangka Prima Tin	INDONESIA	Yes
Tin	PT Bangka Timah Utama Sejahtera	INDONESIA	
Tin	PT Bangka Tin Industry	INDONESIA	Yes
Tin	PT Belitung Industri Sejahtera	INDONESIA	Yes
Tin	PT BilliTin Makmur Lestari	INDONESIA	Yes
Tin	PT Bukit Timah	INDONESIA	Yes
Tin	PT Cipta Persada Mulia	INDONESIA	Yes
Tin	PT DS Jaya Abadi	INDONESIA	Yes
Tin	PT Eunindo Usaha Mandiri	INDONESIA	Yes
Tin	PT Fang Di MulTindo	INDONESIA	
Tin	PT Inti Stania Prima	INDONESIA	Yes
Tin	PT Justindo	INDONESIA	Yes

Tin	PT Karimun Mining	INDONESIA	
Tin	PT Kijang Jaya Mandiri	INDONESIA	
Tin	PT Mitra Stania Prima	INDONESIA	Yes
Tin	PT Panca Mega Persada	INDONESIA	Yes
Tin	PT Pelat Timah Nusantara Tbk	INDONESIA	
Tin	PT Prima Timah Utama	INDONESIA	Yes
Tin	PT Refined Bangka Tin	INDONESIA	Yes
Tin	PT Sariwiguna Binasentosa	INDONESIA	Yes
Tin	PT Seirama Tin Investment	INDONESIA	
Tin	PT Stanindo Inti Perkasa	INDONESIA	Yes
Tin	PT Sukses Inti Makmur	INDONESIA	Yes
Tin	PT Sumber Jaya Indah	INDONESIA	Yes
Tin	PT Timah (Persero) Tbk Kunder	INDONESIA	Yes
Tin	PT Timah (Persero) Tbk Mentok	INDONESIA	Yes
Tin	PT Tinindo Inter Nusa	INDONESIA	Yes
Tin	PT Tirus Putra Mandiri	INDONESIA	
Tin	PT Tommy Utama	INDONESIA	Yes
Tin	PT Wahana Perkit Jaya	INDONESIA	Yes
Tin	Resind Indústria e Comércio Ltda.	BRAZIL	Yes
Tin	Rui Da Hung	TAIWAN	Yes
Tin	Soft Metais Ltda.	BRAZIL	Yes
Tin	Thaisarco	THAILAND	Yes
Tin	Tuyen Quang Non-Ferrous Metals Joint Stock Company	VIET NAM	
Tin	VQB Mineral and Trading Group JSC	VIET NAM	Yes
Tin	White Solder Metalurgia e Mineração Ltda.	BRAZIL	Yes
Tin	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA	
Tin	Yunnan Tin Group (Holding) Company Limited	CHINA	Yes
Tungsten	A.L.M.T. TUNGSTEN Corp.	JAPAN	Yes
Tungsten	ACL Metais Eireli	BRAZIL	
Tungsten	Asia Tungsten Products Vietnam Ltd.	VIET NAM	Yes
Tungsten	Chenzhou Diamond Tungsten Products Co., Ltd.	CHINA	Yes
Tungsten	Chongyi Zhangyuan Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Dayu Jincheng Tungsten Industry Co., Ltd.	CHINA	
Tungsten	Dayu Weiliang Tungsten Co., Ltd.	CHINA	
Tungsten	Fujian Jinxin Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Ganxian Shirui New Material Co., Ltd.	CHINA	
Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Non-ferrous Metals Smelting Co., Ltd.	CHINA	
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Yatai Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Global Tungsten & Powders Corp.	UNITED STATES	Yes
Tungsten	Guangdong Xianglu Tungsten Co., Ltd.	CHINA	Yes
Tungsten	H.C. Starck GmbH	GERMANY	Yes
Tungsten	H.C. Starck Smelting GmbH & Co.KG	GERMANY	Yes
Tungsten	Hunan Chenzhou Mining Co., Ltd.	CHINA	Yes



Tungsten	Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji	CHINA	
Tungsten	Hunan Chuangda Vanadium Tungsten Co., Ltd. Yanglin	CHINA	
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA	Yes
Tungsten	Hydrometallurg, JSC	RUSSIAN FEDERATION	Yes
Tungsten	Japan New Metals Co., Ltd.	JAPAN	Yes
Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA	
Tungsten	Jiangxi Dayu Longxintai Tungsten Co., Ltd.	CHINA	
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.	CHINA	
Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA	
Tungsten	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA	
Tungsten	Jiangxi Xiushui Xianggan Nonferrous Metals Co., Ltd.	CHINA	Yes
Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA	
Tungsten	Kennametal Fallon	UNITED STATES	
Tungsten	Kennametal Huntsville	UNITED STATES	Yes
Tungsten	Malipo Haiyu Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Moliren Ltd	RUSSIAN FEDERATION	
Tungsten	Niagara Refining LLC	UNITED STATES	Yes
Tungsten	Nui Phao H.C. Starck Tungsten Chemicals Manufacturing LLC	VIET NAM	Yes
Tungsten	Philippine Chuangin Industrial Co., Inc.	PHILIPPINES	Yes
Tungsten	Pobedit, JSC	RUSSIAN FEDERATION	
Tungsten	Sanher Tungsten Vietnam Co., Ltd.	VIET NAM	
Tungsten	Tejing (Vietnam) Tungsten Co., Ltd.	VIET NAM	Yes
Tungsten	Vietnam Youngsun Tungsten Industry Co., Ltd.	VIET NAM	Yes
Tungsten	Wolfram Bergbau und Hütten AG	AUSTRIA	Yes
Tungsten	Woltech Korea Co., Ltd.	KOREA, REPUBLIC OF	
Tungsten	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA	Yes
Tungsten	Xiamen Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA	
Tungsten	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	CHINA	Yes

## Annex 2

Publicly available information on countries of origin for the smelters listed in Annex 1 are included here.

Angola	Laos
Argentina	Luxembourg
Australia	Madagascar
Austria	Malaysia
Belgium	Mongolia
Bolivia	Mozambique
Brazil	Myanmar
Burundi	Namibia
Cambodia	Netherlands
Canada	Nigeria
Central African Republic	Peru
Chile	Portugal
China	Republic of Congo
Colombia	Russia
Cote D'Ivoire	Rwanda
Czech Republic	Sierra Leone
Democratic Republic of Congo	Singapore
Djibouti	Slovakia
Ecuador	South Africa
Egypt	South Korea
Estonia	South Sudan
Ethiopia	Spain
France	Suriname
Germany	Switzerland
Guyana	Taiwan
Hungary	Tanzania
India	Thailand
Indonesia	Uganda
Ireland	United Kingdom
Israel	United States
Japan	Vietnam
Kazakhstan	Zambia
Kenya	Zimbabwe