

**Teledyne Technologies Incorporated**

**Conflict Minerals Report**

**Calendar Year Ending December 31, 2018**

**May 30, 2019**

Introduction

This Conflict Minerals Report (this "Report") for the year ended December 31, 2018, is presented to comply with Rule 13p-1 under the Securities Exchange Act of 1934, as amended (the "Rule"). The Rule was adopted by the Securities and Exchange Commission (the "SEC") to implement reporting and disclosure requirements related to conflict minerals as provided for by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. The Rule imposes certain reporting obligations on SEC registrants that manufacture products containing conflict minerals which are necessary to the functionality or production of their products. The term "conflict minerals" is defined as columbite-tantalite (tantalum), cassiterite (tin), gold or wolframite (tungsten) or any other mineral or its derivatives determined by the Secretary of State to be financing conflict in the Democratic Republic of the Congo ("DRC") or any adjoining country the DRC, including the Central African

Republic, South Sudan, Rwanda, Uganda, Zambia, Burundi, Tanzania and Angola (collectively, the “Covered Countries”). For the purposes of this Report, tin, tungsten, tantalum and gold will collectively be referred to as the 3TGs:

This Report (1) describes the reasonable country of origin inquiry (“RCOI”) and subsequent due diligence efforts undertaken by Teledyne Technologies Incorporated (herein referred to as the “Company” “we”, “us”, or “our”) to determine whether in the 2018 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 Rule. This Report includes details with respect to the good-faith reasonable country of origin inquiry undertaken by the Company.

#### Company Overview.

Teledyne Technologies Incorporated provides enabling technologies for industrial growth markets that require advanced technology and high reliability. These markets include aerospace and defense, factory automation, air and water quality environmental monitoring, electronics design and development, oceanographic research, deepwater oil and gas exploration and production, medical imaging and pharmaceutical research. Our products include digital imaging sensors, cameras and systems within the visible, infrared and X-ray spectra, monitoring and control instrumentation for marine and environmental applications, harsh environment interconnects, electronic test and measurement equipment, aircraft information management systems, and defense electronics and satellite communication subsystems. We also

supply engineered systems for defense, space, environmental and energy applications. We differentiate ourselves from many of our direct competitors by having a customer and company-sponsored applied research center that augments our product development expertise.

### 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/about-us/ethics-and-values>.

### Reasonable Country of Origin Inquiry (RCOI)

After the RCOI, 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.

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 2018, the Company focused on suppliers of materials, parts and components. The Company identified 4,390 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 2017 fiscal year, which ended on December 31, 2017 (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 reasonably certainty to provide materials, parts or components that contain Conflict Minerals.

The Company, with the assistance of its third-party service provider, 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 5.11 or higher (“CMRT”) and instructions on how to complete the CMRT. The CMRT is a standardized reporting template developed by the Responsible Minerals Initiative (“RMI”) that facilitates the transfer of information through the supply chain regarding mineral country of origin and smelters or 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 suppliers by email a minimum of three times and then non-responsive suppliers directly a minimum of two times. Additional communications include training and education on the completion of the CMRT form as well as access to Assent University, a learning management system developed by Assent, designed to alleviate any remaining confusion with suppliers. All communications and courses completed by suppliers were monitored and tracked in Assent's system for future reporting and transparency.

Teledyne’s Conflict Minerals program through Assent 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.

Based on the responses provided by suppliers 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.

## Due Diligence

### *Design of Due Diligence Measures*

In accordance with the 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”).

## 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 Systems**

#### **1.1 Internal Team**

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, General Counsel, Chief Compliance Officer and Secretary, the Company's President and Chief Executive 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.

As stated throughout this Report, we also partner with Assent, a SaaS company whose software allows us to collect and store CMRTs and supplier data, communicate with our supply chain and provide training and education.

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

The CMRTs we collected from our suppliers allowed us to obtain information that was relevant to our due diligence efforts, including the names of smelters or refiners in our suppliers' supply chains. While a portion of the Company's direct suppliers are also subject to the reporting obligations under the Exchange Act and knowledgeable about the Rule, the Company also has many other suppliers and distributors that do not have the same reporting obligations and as such require additional training to understand the requirements of the Rule.

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

#### **1.4 Maintain Records**

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.

#### **1.5 Strengthen company engagement with suppliers**

With respect to the OECD requirement to strengthen engagement with suppliers, the Company has utilized the CMRT version 5.11 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, the Company’s procurement organization continues to integrate 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.

## **1.6 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 order to assess the risk that any of these smelters posed to our supply chain, Assent determined if the smelter had been audited against a standard in conformance with the OECD Guidance, such as the Responsible Minerals Assurance Process (RMAP). We do not typically have a direct relationship with 3TG smelters and refiners and do not perform or direct audits of these entities within our supply chain. Smelters that have completed an RMAP audit are considered to be DRC-Conflict Free. In cases where the smelter's due diligence practices have not been audited against the RMAP standard, a potential supply chain risk exists.

Each facility that meets the RMI definition of a smelter or refiner of a 3TG mineral is assigned assessed according to red-flag indicators defined in the OECD Guidance. Assent uses 5 factors to determine the level of risk that each smelter poses to the supply chain by identifying red-flags:



- Geographic proximity to the DRC and covered countries;
- Known mineral source country of origin;
- Responsible Minerals Assurance Process (RMAP) audit status;
- Credible evidence of unethical or conflict sourcing

Peer Assessments conducted by credible third-party sources.

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:

- Have you established a conflict minerals sourcing policy?
- Have you implemented due diligence measures for conflict-free sourcing?
- Do you review due diligence information received from your suppliers against your company's expectations?
- Does your review 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 Responsible Business Alliance 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 becomes 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 together with Assent developed a plan to send additional communications, offer additional education, or, if necessary, have the Company's procurement organization engage with the supplier.

When red-flag smelters or refiners were reported based on the logic discussed in the previous section, risk mitigation activities are initiated. CMRT submissions that include any red-flag smelters or refiners immediately produced a receipt instructing the supplier to take their own risk mitigation actions, including submission of a product specific CMRT to better identify the connection to products that they supply to Teledyne and directives to remove these red-flag smelters from their supply chain. Through our smelter and refinery assessments, we also monitor red flags related to risks outside of just sourcing conflict minerals from the Covered Countries.

#### **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://www.teledyne.com/about-us/ethics-and-values>

### Results of Due Diligence

The Company, through Assent's software platform, surveyed a total of 4,390 suppliers. Of the 2,636 responses, 151 were determined to be out of scope, 119 were deemed invalid and marked for follow-up, and 2,366 were accepted as complete. This is an overall response rate of 60.05 %.

### 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 RMI and, if a supplier indicated that the facility was certified as conflict-free, confirmed that the name was listed by RMI. Based on the smelter lists provided by suppliers via the CMRTs, the Company is aware that 255 smelters are certified conflict-free, and a number of other smelters are active in the RMAP third-party audit process.

As of May 15, 2019, the Company has validated 319 legitimate 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 based on information provided by suppliers and the RMI. 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

The Company’s conflict minerals program for the 2019 calendar year will continue to focus on vetting smelter data, which may include the following actions:

- Working with suppliers to move to version 5.12 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 Responsible Minerals 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 3TGs 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;

- 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.

The Company reserves the right to modify or eliminate these Risk Mitigation Steps, including, without limitation, in response to any changes or proposed changes to the Rule by the SEC.

## 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 RMI's Responsible Minerals Assurance Process third-party audit certifying conflict-free sourcing. As noted in the Report, 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.

Gold	8853 S.p.A.	ITALY	Yes
Gold	Abington Reldan Metals, LLC	UNITED STATES	Unknown
Gold	Advanced Chemical Company	UNITED STATES	Yes
Gold	African Gold Refinery	UGANDA	Unknown
Gold	Aida Chemical Industries Co., Ltd.	JAPAN	Yes
Gold	Al Etihad Gold LLC	UNITED ARAB EMIRATES	Yes
Gold	Allgemeine Gold-und Silberscheideanstalt A.G.	GERMANY	Yes
Gold	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN	Yes
Gold	AngloGold Ashanti Córrego do Sítio Mineração	BRAZIL	Yes
Gold	Argor-Heraeus S.A.	SWITZERLAND	Yes
Gold	Asahi Pretec Corp.	JAPAN	Yes
Gold	Asahi Refining Canada Ltd.	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	Unknown
Gold	AU Traders and Refiners	SOUTH AFRICA	Yes
Gold	Aurubis AG	GERMANY	Yes
Gold	Bangalore Refinery	INDIA	Unknown
Gold	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES	Yes
Gold	Boliden AB	SWEDEN	Yes
Gold	C. Hafner GmbH + Co. KG	GERMANY	Yes
Gold	Caridad	MEXICO	Unknown
Gold	CCR Refinery - Glencore Canada Corporation	CANADA	Yes
Gold	Cendres + Métaux S.A.	SWITZERLAND	Yes
Gold	Chimet S.p.A.	ITALY	Yes
Gold	Chugai Mining	JAPAN	Unknown
Gold	Daejin Indus Co., Ltd.	KOREA, REPUBLIC OF	Yes
Gold	Daye Non-Ferrous Metals Mining Ltd.	CHINA	Unknown
Gold	Degussa Sonne / Mond Goldhandel GmbH	GERMANY	Unknown
Gold	Dijllah Gold Refinery FZC	UNITED ARAB EMIRATES	Unknown
Gold	DODUCO Contacts and Refining GmbH	GERMANY	Yes
Gold	Dowa	JAPAN	Yes

Gold	DS PRETECH Co., Ltd.	KOREA, REPUBLIC OF	Yes
Gold	DSC (Do Sung Corporation)	KOREA, REPUBLIC OF	Yes
Gold	Eco-System Recycling Co., Ltd.	JAPAN	Yes
Gold	Emirates Gold DMCC	UNITED ARAB EMIRATES	Yes
Gold	Fidelity Printers and Refiners Ltd.	ZIMBABWE	Unknown
Gold	Fujairah Gold FZE	UNITED ARAB EMIRATES	Unknown
Gold	GCC Gujrat Gold Centre Pvt. Ltd.	INDIA	Unknown
Gold	Geib Refining Corporation	UNITED STATES	Yes
Gold	Gold Refinery of Zijin Mining Group Co., Ltd.	CHINA	Yes
Gold	Great Wall Precious Metals Co., Ltd. of CBPM	CHINA	Unknown
Gold	Guangdong Jinding Gold Limited	CHINA	Unknown
Gold	Guoda Safina High-Tech Environmental Refinery Co., Ltd.	CHINA	Unknown
Gold	Hangzhou Fuchunjiang Smelting Co., Ltd.	CHINA	Unknown
Gold	HeeSung	KOREA, REPUBLIC OF	Yes
Gold	Heimerle + Meule GmbH	GERMANY	Yes
Gold	Heraeus Metals Hong Kong Ltd.	CHINA	Yes
Gold	Heraeus Precious Metals GmbH & Co. KG	GERMANY	Yes
Gold	Hunan Chenzhou Mining Co., Ltd.	CHINA	Unknown

Gold	Hunan Guiyang yinxing Nonferrous Smelting Co., Ltd.	CHINA	Unknown
Gold	Hwasung CJ Co., Ltd.	KOREA, REPUBLIC OF	Unknown
Gold	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	CHINA	Yes
Gold	International Precious Metal Refiners	UNITED ARAB EMIRATES	Unknown
Gold	Ishifuku Metal Industry Co., Ltd.	JAPAN	Yes
Gold	Istanbul Gold Refinery	TURKEY	Yes
Gold	Italpreziosi	ITALY	Yes
Gold	Japan Mint	JAPAN	Yes
Gold	Jiangxi Copper Co., Ltd.	CHINA	Yes
Gold	JSC Ekaterinburg Non-Ferrous Metal Processing Plant	RUSSIAN FEDERATION	Unknown
Gold	JSC Uralelectromed	RUSSIAN FEDERATION	Yes
Gold	JX Nippon Mining & Metals Co., Ltd.	JAPAN	Yes
Gold	Kaloti Precious Metals	UNITED ARAB EMIRATES	Unknown
Gold	Kazakhmys Smelting LLC	KAZAKHSTAN	Unknown
Gold	Kazzinc	KAZAKHSTAN	Yes
Gold	Kennecott Utah Copper LLC	UNITED STATES	Yes
Gold	KGHM Polska Miedz Spolka Akcyjna	POLAND	Unknown
Gold	Kojima Chemicals Co., Ltd.	JAPAN	Yes

Gold	Korea Zinc Co., Ltd.	KOREA, REPUBLIC OF	Yes
Gold	Kyrgyzaltyn JSC	KYRGYZSTAN	Yes
Gold	Kyshtym Copper-Electrolytic Plant ZAO	RUSSIAN FEDERATION	Unknown
Gold	L'azurde Company For Jewelry	SAUDI ARABIA	Unknown
Gold	Lingbao Gold Co., Ltd.	CHINA	Unknown
Gold	Lingbao Jinyuan Tonghui Refinery Co., Ltd.	CHINA	Unknown
Gold	L'Orfebre S.A.	ANDORRA	Yes
Gold	LS-NIKKO Copper Inc.	KOREA, REPUBLIC OF	Yes
Gold	Luoyang Zijin Yinhui Gold Refinery Co., Ltd.	CHINA	Unknown
Gold	Marsam Metals	BRAZIL	Yes
Gold	Materion	UNITED STATES	Yes
Gold	Matsuda Sangyo Co., Ltd.	JAPAN	Yes
Gold	Metalor Technologies (Hong Kong) Ltd.	CHINA	Yes
Gold	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE	Yes
Gold	Metalor Technologies (Suzhou) Ltd.	CHINA	Yes
Gold	Metalor Technologies S.A.	SWITZERLAND	Yes
Gold	Metalor USA Refining Corporation	UNITED STATES	Yes
Gold	Metalúrgica Met-Mex Peñoles 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	Modeltech Sdn Bhd	MALAYSIA	Unknown
Gold	Morris and Watson	NEW ZEALAND	Unknown
Gold	Morris and Watson Gold Coast	AUSTRALIA	Unknown
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	Unknown
Gold	NH Recytech Company	KOREA, REPUBLIC OF	Unknown
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 Novosibirsk Refinery	RUSSIAN FEDERATION	Yes
Gold	PAMP S.A.	SWITZERLAND	Yes
Gold	Pease & Curren	UNITED STATES	Unknown
Gold	Penglai Penggang Gold Industry Co., Ltd.	CHINA	Unknown
Gold	Planta Recuperadora de Metales SpA	CHILE	Yes

Gold	Prioksky Plant of Non-Ferrous Metals	RUSSIAN FEDERATION	Yes
Gold	PT Aneka Tambang (Persero) Tbk	INDONESIA	Yes
Gold	PX Précinox S.A.	SWITZERLAND	Yes
Gold	QG Refining, LLC	UNITED STATES OF AMERICA	Unknown
Gold	Rand Refinery (Pty) Ltd.	SOUTH AFRICA	Yes
Gold	Refinery of Seemine Gold Co., Ltd.	CHINA	Unknown
Gold	Remondis Argentia B.V.	NETHERLANDS	Yes
Gold	Republic Metals Corporation	UNITED STATES	Yes
Gold	Royal Canadian Mint	CANADA	Yes
Gold	SAAMP	FRANCE	Yes
Gold	Sabin Metal Corp.	UNITED STATES	Unknown
Gold	Safimet S.p.A	Italy	Yes
Gold	SAFINA A.S.	CZECH REPUBLIC	Unknown
Gold	Sai Refinery	INDIA	Unknown
Gold	Samduck Precious Metals	KOREA, REPUBLIC OF	Unknown
Gold	SAMWON Metals Corp.	KOREA, REPUBLIC OF	Unknown
Gold	SAXONIA Edelmetalle GmbH	GERMANY	Yes
Gold	SEMPSA Joyería Platería S.A.	SPAIN	Yes
Gold	Shandong Tiancheng Biological Gold Industrial Co., Ltd.	CHINA	Unknown

Gold	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA	Yes
Gold	Shangdong Humon Smelting Co., Ltd.	CHINA	Unknown
Gold	Sichuan Tianze Precious Metals Co., Ltd.	CHINA	Yes
Gold	Singway Technology Co., Ltd.	TAIWAN	Yes
Gold	SOE Shyolkovsky Factory of Secondary Precious Metals	RUSSIAN FEDERATION	Yes
Gold	Solar Applied Materials Technology Corp.	TAIWAN	Yes
Gold	State Research Institute Center for Physical Sciences and Technology	LITHUANIA	Unknown
Gold	Sudan Gold Refinery	SUDAN	Unknown
Gold	Sumitomo Metal Mining Co., Ltd.	JAPAN	Yes
Gold	SungEel HiTech	KOREA, REPUBLIC OF	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	Unknown
Gold	Tony Goetz NV	BELGIUM	Unknown
Gold	TOO Tau-Ken-Altyn	KAZAKHSTAN	Unknown
Gold	Torecom	KOREA, REPUBLIC OF	Yes
Gold	Umicore Brasil Ltda.	BRAZIL	Yes

Gold	Umicore Precious Metals Thailand	THAILAND	Yes
Gold	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM	Yes
Gold	United Precious Metal Refining, Inc.	UNITED STATES	Yes
Gold	Universal Precious Metals Refining Zambia	ZAMBIA	Unknown
Gold	Valcambi S.A.	SWITZERLAND	Yes
Gold	Western Australian Mint trading as The Perth Mint	AUSTRALIA	Yes
Gold	WIELAND Edelmetalle GmbH	GERMANY	Yes
Gold	Yamamoto Precious Metal Co., Ltd.	JAPAN	Yes
Gold	Yokohama Metal Co., Ltd.	JAPAN	Yes
Gold	Yunnan Copper Industry Co., Ltd.	CHINA	Unknown
Gold	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA	Yes
Tantalum	Asaka Riken Co., Ltd.	JAPAN	Yes
Tantalum	Changsha South Tantalum Niobium Co., Ltd.	CHINA	Yes
Tantalum	D Block Metals, LLC	UNITED STATES	Yes
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 Rising Rare Metals-EO Materials Ltd.	CHINA	Yes



Tantalum	Guangdong Zhiyuan New Material Co., Ltd.	CHINA	Yes
Tantalum	H.C. Starck Co., Ltd.	THAILAND	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	H.C. Starck Tantalum and Niobium GmbH	GERMANY	Yes
Tantalum	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA	Yes
Tantalum	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA	Yes
Tantalum	Jiangxi Tuohong New Raw Material	CHINA	Yes
Tantalum	Jiujiang Janny New Material Co., Ltd.	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	LSM Brasil S.A.	BRAZIL	Yes
Tantalum	Metallurgical Products India Pvt., Ltd.	INDIA	Yes
Tantalum	Mineracao Taboca S.A.	BRAZIL	Yes
Tantalum	Mitsui Mining and Smelting Co., Ltd.	JAPAN	Yes

Tantalum	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA	Yes
Tantalum	NPM Silmet AS	ESTONIA	Yes
Tantalum	Power Resources Ltd.	MACEDONIA	Yes
Tantalum	QuantumClean	UNITED STATES	Yes
Tantalum	Resind Industria e Comercio 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	Ulba Metallurgical Plant JSC	KAZAKHSTAN	Yes
Tantalum	XinXing HaoRong Electronic Material Co., Ltd.	CHINA	Yes
Tin	Alpha	UNITED STATES	Yes
Tin	An Vinh Joint Stock Mineral Processing Company	VIET NAM	Unknown
Tin	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA	Yes
Tin	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA	Yes
Tin	China Tin Group Co., Ltd.	CHINA	Yes
Tin	CV Ayi Jaya	INDONESIA	Yes
Tin	CV Dua Sekawan	INDONESIA	Yes
Tin	CV Gita Pesona	INDONESIA	Yes
Tin	CV Tiga Sekawan	INDONESIA	Yes

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	Unknown
Tin	EM Vinto	BOLIVIA	Yes
Tin	Estanho de Rondônia S.A.	BRAZIL	Unknown
Tin	Fenix Metals	POLAND	Yes
Tin	Gejiu Fengming Metallurgy Chemical Plant	CHINA	Yes
Tin	Gejiu Kai Meng Industry and Trade LLC	CHINA	Yes
Tin	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA	Yes
Tin	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA	Yes
Tin	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA	Yes
Tin	Guangdong Hanhe Non-ferrous Metal Limited Company	CHINA	Yes
Tin	Guanyang Guida Nonferrous Metal Smelting Plant	CHINA	Yes
Tin	HuiChang Hill Tin Industry Co., Ltd.	CHINA	Unknown
Tin	Huichang Jinshunda Tin Co., Ltd.	CHINA	Yes
Tin	Jiangxi New Nanshan Technology Ltd.	CHINA	Yes
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	Metallic Resources, Inc.	UNITED STATES	Yes
Tin	Metallo Belgium N.V.	BELGIUM	Yes
Tin	Metallo Spain S.L.U.	SPAIN	Yes
Tin	Mineracao Taboca S.A.	BRAZIL	Yes
Tin	Minsur	PERU	Yes
Tin	Mitsubishi Materials Corporation	JAPAN	Yes
Tin	Modeltech Sdn Bhd	MALAYSIA	Yes
Tin	Nghe Tinh Non-Ferrous Metals Joint Stock Company	VIET NAM	Unknown
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	Pongpipat Company Limited	MYANMAR	Unknown
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 Babel Surya Alam Lestari	INDONESIA	Yes
Tin	PT Bangka Prima Tin	INDONESIA	Yes
Tin	PT Bangka Serumpun	INDONESIA	Yes
Tin	PT Bangka Tin Industry	INDONESIA	Yes

Tin	PT Belitung Industri Sejahtera	INDONESIA	Yes
Tin	PT Bukit Timah	INDONESIA	Yes
Tin	PT DS Jaya Abadi	INDONESIA	Yes
Tin	PT Inti Stania Prima	INDONESIA	Yes
Tin	PT Karimun Mining	INDONESIA	Yes
Tin	PT Kijang Jaya Mandiri	INDONESIA	Yes
Tin	PT Menara Cipta Mulia	INDONESIA	Yes
Tin	PT Mitra Stania Prima	INDONESIA	Yes
Tin	PT Panca Mega Persada	INDONESIA	Yes
Tin	PT Premium Tin Indonesia	INDONESIA	Yes
Tin	PT Prima Timah Utama	INDONESIA	Yes
Tin	PT Refined Bangka Tin	INDONESIA	Yes
Tin	PT Sariwiguna Binasentosa	INDONESIA	Yes
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 Kundur	INDONESIA	Yes
Tin	PT Timah (Persero) Tbk Mentok	INDONESIA	Yes
Tin	PT Tinindo Inter Nusa	INDONESIA	Yes
Tin	PT Tirus Putra Mandiri	INDONESIA	Yes

Tin	PT Tommy Utama	INDONESIA	Yes
Tin	Resind Industria e Comercio Ltda.	BRAZIL	Yes
Tin	Rui Da Hung	TAIWAN	Yes
Tin	Soft Metais Ltda.	BRAZIL	Yes
Tin	Super Ligas	Brazil	Unknown
Tin	Thai Nguyen Mining and Metallurgy Co., Ltd.	VIET NAM	Yes
Tin	Thaisarco	THAILAND	Yes
Tin	Tin Technology & Refining	UNITED STATES OF AMERICA	Yes
Tin	Tuyen Quang Non-Ferrous Metals Joint Stock Company	VIET NAM	Unknown
Tin	White Solder Metalurgia e Mineração Ltda.	BRAZIL	Yes
Tin	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA	Yes
Tin	Yunnan Tin Company Limited	CHINA	Yes
Tungsten	A.L.M.T. TUNGSTEN Corp.	JAPAN	Yes
Tungsten	ACL Metais Eireli	BRAZIL	Yes
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	Fujian Jinxin Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Haichuang Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA	Yes

Tungsten	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA	Yes
Tungsten	Ganzhou Yatai Tungsten Co., Ltd.	CHINA	Unknown
Tungsten	Global Tungsten & Powders Corp.	UNITED STATES	Yes
Tungsten	Guangdong Xianglu Tungsten Co., Ltd.	CHINA	Yes
Tungsten	H.C. Starck Smelting GmbH & Co.KG	GERMANY	Yes
Tungsten	H.C. Starck Tungsten GmbH	GERMANY	Yes
Tungsten	Hunan Chenzhou Mining Co., Ltd.	CHINA	Yes
Tungsten	Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji	CHINA	Yes
Tungsten	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA	Yes
Tungsten	Hunan Litian Tungsten Industry Co., Ltd.	CHINA	Unknown
Tungsten	Hydrometallurg, JSC	RUSSIAN FEDERATION	Yes
Tungsten	Japan New Metals Co., Ltd.	JAPAN	Yes
Tungsten	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA	Yes
Tungsten	Jiangxi Dayu Longxintai Tungsten Co., Ltd.	CHINA	Unknown
Tungsten	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Jiangxi Minmetals Gao'an Non-ferrous Metals Co., Ltd.	CHINA	Unknown
Tungsten	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA	Yes
Tungsten	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA	Yes

Tungsten	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Kennametal Fallon	UNITED STATES	Yes
Tungsten	Kennametal Huntsville	UNITED STATES	Yes
Tungsten	Malipo Haiyu Tungsten Co., Ltd.	CHINA	Yes
Tungsten	Moliren Ltd	RUSSIAN FEDERATION	Yes
Tungsten	Niagara Refining LLC	UNITED STATES	Yes
Tungsten	Nui Phao H.C. Starck Tungsten Chemicals Manufacturing LLC	VIET NAM	Yes
Tungsten	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES	Yes
Tungsten	South-East Nonferrous Metal Company Limited of Hengyang City	CHINA	Yes
Tungsten	Tejing (Vietnam) Tungsten Co., Ltd.	VIET NAM	Yes
Tungsten	Unecha Refractory metals plant	RUSSIAN FEDERATION	Yes
Tungsten	Wolfram Bergbau und Hütten AG	AUSTRIA	Yes
Tungsten	Woltech Korea Co., Ltd.	KOREA, REPUBLIC OF	Yes
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	Yes
Tungsten	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	CHINA	Yes



## **Annex 2**

Potential countries of origin include:

- Argentina, Australia, Austria, Benin, Bolivia, Brazil, Burkina Faso, Burundi, Cambodia, Canada, Chile, China, Colombia, Congo, Democratic Republic of the, Ecuador, Eritrea, Ethiopia, France, Germany, Ghana, Guatemala, Guinea, Guyana, Honduras, India, Indonesia, Japan, Kazakhstan, Laos, Madagascar, Malaysia, Mali, Mexico, Mongolia, Mozambique, Myanmar, Namibia, Nicaragua, Nigeria, Panama, Peru, Portugal, Russian Federation, Rwanda, Senegal, Sierra Leone, South Africa, Spain, Thailand, Togo, Uganda, United Kingdom of Great Britain and Northern Ireland, United States of America, Uzbekistan, Vietnam, Zimbabwe