# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

**WASHINGTON, D.C. 20549** 

FORM SD

**Specialized Disclosure Report** 



### **ON Semiconductor Corporation**

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 000-30419 (Commission File Number) 36-3840979 (IRS Employer Identification No.)

ON Semiconductor Corporation 5005 East McDowell Road Phoenix, Arizona (Address of principal executive offices)

85008 (Zip Code)

George H. Cave ON Semiconductor Corporation (602) 244-6600

(Name and telephone number, including area code, of the person to contact in connection with this report)

Check the appropriate box to indicate the rule pursuant to which this form is being filed, and provide the period to which the information in this form applies:

Rule 13p-1 under the Securities Exchange Act (17 CFR 240.13p-1) for the reporting period from January 1 to December 31, 2019.

#### SECTION 1. CONFLICT MINERALS DISCLOSURE

#### Item 1.01. Conflict Minerals Disclosure and Report

Pursuant to Rule 13p-1 and Section 13(p) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which implements Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Conflict Regulations"), ON Semiconductor Corporation (the "Company") was required to make certain inquiries and perform certain due diligence with respect to any "conflict minerals" (as defined by paragraph (d)(3) of Item 1.01 of Form SD) that are necessary to the functionality or production of a product manufactured (or contracted to be manufactured) by the Company or any of its subsidiaries.

Conflict minerals are necessary to the functionality of certain of the Company's products. As required in the Conflict Regulations, the Company has conducted a reasonable country of origin inquiry ("RCOI") designed to determine whether any of the conflict minerals originated in the Democratic Republic of the Congo or an adjoining country or are from recycled or scrap sources. Based on its RCOI, the Company was unable to reasonably conclude that all of the conflict minerals contained in its products did not originate in the Democratic Republic of the Congo or an adjoining country or come from recycled or scrap sources. Therefore, the Company was required to exercise due diligence on the source and chain of custody of its conflict minerals in accordance with the Conflict Regulations and Form SD and to file a Conflict Minerals Report.

#### **Conflict Minerals Disclosure**

The Company has filed a Conflict Minerals Report which is attached hereto as Exhibit 1.01 and is incorporated herein by reference (the "CMR"). The CMR is also publicly available on the Company's website at <a href="http://www.onsemi.com/social-responsibility">http://www.onsemi.com/social-responsibility</a>. The reference to the Company's website is provided for convenience only, and its contents are not incorporated by reference into this Form SD or the CMR nor deemed "filed" with the U.S. Securities and Exchange Commission pursuant to the Exchange Act or the Securities Act of 1933, as amended.

#### Item 1.02. Exhibit

Information concerning conflict minerals required by the Conflict Regulations is included in Exhibit 1.01 to this Specialized Disclosure Report on Form SD.

#### **SECTION 2. EXHIBITS**

#### Item 2.01. Exhibits

Exhibit No.Description1.01Conflict Minerals Report for the year ended December 31, 2019 as required by Items 1.01 and 1.02 of this Form.

#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the duly authorized undersigned.

Date: May 22, 2020

#### ON SEMICONDUCTOR CORPORATION

(Registrant)

By: /s/ GEORGE H. CAVE

Name: George H. Cave

Title: Executive Vice President, General Counsel, Chief Compliance Officer, Chief Risk Officer, Chief Privacy Officer, and Secretary



This unaudited Conflict Minerals Report (this "Report") of ON Semiconductor Corporation (the "Company," "ON Semiconductor," "we," or "us") for the year ended December 31, 2019 is attached as Exhibit 1.01 to the Form SD. This Report is also publicly available on the Company's website: <a href="http://www.onsemi.com/social-responsibility">http://www.onsemi.com/social-responsibility</a>. The content of any website referred to in this Report is included for general information only and is not incorporated by reference in this Report.

Pursuant to Rule 13p-1 and Section 13(p) of the Securities Exchange Act of 1934, as amended, which implements Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Conflict Regulations"), the Company was required to make certain inquiries and perform certain due diligence with respect to any "conflict minerals" (as defined by paragraph (d)(3) of Item 1.01 of Form SD) that are necessary to the functionality or production of a product manufactured (or contracted to be manufactured) by the Company or any of its subsidiaries.

The Company is a broad-based supplier of semiconductor components that serves a variety of end markets, including computing, automotive, consumer, industrial, communications, networking, aerospace/defense, and medical. Our extensive portfolio of sensors, power management, connectivity, custom and system on chip, analog, logic, timing, and discrete devices helps customers efficiently solve their design challenges in advanced electronic systems and products.

As a purchaser of products containing the minerals tantalum, tin, tungsten, or gold (collectively, "3TG") from suppliers for use in our manufacturing process, the Company continues to be concerned about the reports of violence and human rights violations resulting from the sourcing of such minerals from the Democratic Republic of the Congo and adjoining countries ("Covered Countries"). The Company's Corporate Social Responsibility Report, which addresses these concerns and other actions the Company is taking in the area of social responsibility, is available at <a href="http://www.onsemi.com/social-responsibility">http://www.onsemi.com/social-responsibility</a>.

For purposes of this Report, the term "products" is used to describe products manufactured (or contracted to be manufactured) by the Company or any of its subsidiaries. As a result, when conducting its conflict minerals analysis as required by the Conflict Regulations, the Company has considered its sole product to be semiconductor components.

This Report describes the process undertaken for products that were manufactured, or contracted to be manufactured, during calendar year 2019 and that contain conflict minerals. This Report is unaudited, as an independent private sector audit is not required pursuant to guidance provided by the Securities and Exchange Commission (the "SEC").

As a result of its inquiry, the Company determined that conflict minerals are necessary to the functionality of the Company's products. In particular, these minerals provide internal electrically conductive connections to the various circuit elements required to manufacture a working semiconductor device and/or provide an electrically conductive path to connect the semiconductor device to the electronic application in which it is utilized.

Conflict minerals are obtained from multiple sources worldwide, and the Company does not desire to eliminate those originating in Covered Countries. However, the Company is committed to pursuing conflict free sourcing of minerals from our supply chain through collaboration with our suppliers, including through our activities as a member of the Responsible Business Alliance ("RBA") and a participant in the Responsible Minerals Initiative ("RMI"). As a member of the RMI, we are required to engage in reasonable due diligence with respect to our supply chain to assure such minerals are not being sourced from entities supporting armed conflict within the Covered Countries. The Company also recognizes the importance of supporting responsible mineral sourcing from the Covered Countries so as not to negatively impact the economies of those countries.

#### **Due Diligence**

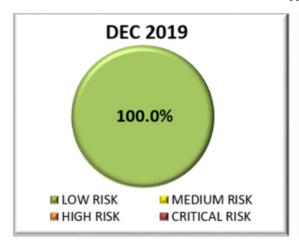
In accordance with the Conflict Regulations, the Company conducted a reasonable country of origin inquiry ("RCOI") designed to determine whether any of the conflict minerals in its products originated in a Covered Country or are from recycled or scrap sources. Based on its RCOI, the Company was unable to reasonably conclude that all of its conflict minerals did not originate in a

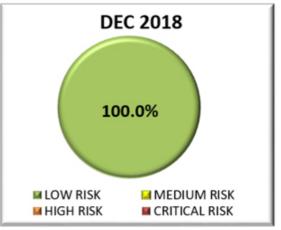
Covered Country or come from recycled or scrap sources, and the Company continues its due diligence on the source and chain of custody of its conflict minerals. In connection with this supply chain due diligence, the Company used the Organisation for Economic Co-operation and Development ("OECD") Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (Third Edition, OECD 2016) and the related Supplements on tantalum, tin, tungsten, and gold (collectively, the "OECD Guidance") and, among other actions, implemented the following:

- OECD: Step 1: Established a strong management system
  - The Company continually reviews and updates policies as appropriate to reflect the procedures by which the Company and its suppliers should conduct due diligence related to conflict minerals.
  - The Company established an internal management team to support supply chain due diligence to institute a systematic process. The
    internal management team includes appropriate employees within the Company's quality, supply chain, finance, operations, and
    legal departments. The sustaining management team consists of quality, CSR, supply chain, and legal representatives. Additionally,
    the Corporate Governance and Nominating Committee of the Board of Directors of the Company reviews the program on a quarterly
    basis to track the progress towards the program's goals.
  - The Company is a member of the RBA and RMI and participates in the RMI as a member of its workgroups, including its smelter
    engagement team. Such participation allows members to learn from peer companies in the electronics industry regarding their
    conflict mineral plans, programs, and processes.
  - The Company utilized the form conflict minerals reporting template ("CMRT"), standardized by the RMI, to collect sourcing information from its suppliers in order to identify whether: (i) conflict minerals sourced by such suppliers originated in Covered Countries; and (ii) smelters and refiners (collectively, "smelters") in our supply chain have been validated as conformant in accordance with the Responsible Minerals Assurance Process ("RMAP") and cross-recognized certification programs which include the London Bullion Metal Association ("LBMA") Responsible Gold Certification and the Responsible Jewelry Council ("RJC") Responsible Jewelry Program Chain-of-Custody Certification.
  - In addition, a summary of conflict minerals and countries of origin information collected in connection with our RCOI and due diligence efforts is attached hereto as Appendix A.
  - The RMI developed an audit protocol for verification of entities as conformant with the RMAP in accordance with the OECD Guidance and in conjunction with complementary traceability schemes in the Covered Countries. The Conformant Smelter List is composed of entities that were determined to be conformant with the RMAP and that have been subject to an independent third party audit to assess whether the entity employed policies, practices, and procedures to source conflict free minerals. ON Semiconductor uses the Conformant Smelter List and any other lists that have been recognized by the RMI, including the LBMA and RJC lists for gold, for making conflict minerals determinations with respect to conflict minerals sourced by the Company. We are a member of the RMI and have access to RMI country of origin information for entities on the Conformant Smelter List.
  - The Company utilizes an internal compliance audit to assess and confirm that the due diligence approach followed by the Company
    is in accordance with OECD Guidance.
  - The Company established communication channels with customers and suppliers to inquire about conflict minerals and alert such entities about the risk of using non-RMAP sources and the grievance mechanisms under our conflict minerals program.
- OECD: Step 2: Risk identification and assessment / Identified supply chain risk
  - The Company believes that it has identified 100% of the suppliers who provide it with 3TG through its supply chain diligence. From time to time, RMI releases CMRT revisions. The Company sent an outreach campaign letter requesting the latest CMRT from each of its suppliers.
  - The Company employs a third-party web-based software platform to collect, manage, review completeness, and

aggregate the CMRT declarations received from its suppliers. This software ensures the Company has an auditable "chain of custody" regarding receipt of declarations and information received from suppliers and is also used to respond to inquiries from customers.

- The Company uses the RMI's RCOI report to identify suppliers using smelters that are conformant to a third-party audit program to
  assess related supply chain risks. The Company also utilizes the RMI's RCOI report to diligence and confirm certain information
  from its suppliers.
- The Company's conflict minerals team reviews all CMRT responses for completeness and consistency with the latest CMRT revision. As of December 31, 2019, the Company had received and reviewed CMRT submissions from 100% of its suppliers.
- OECD Step 3: Strategy to respond to identified risks / Implemented strategy to address that risk
  - The Company's conflict minerals team reviews and updates its own company-level CMRT on a monthly basis to identify any risks in the supply chain for non-RMAP conformant smelters reported by suppliers in their submitted CMRTs.
    - Outreach or encouragement letters are sent to suppliers to remove or replace non-RMAP conformant smelters. The Company contacts suppliers and regularly sends out reminder emails to request responses or updates.
    - As part of the RMI Smelter Engagement Team campaign, outreach or encouragement letters are also sent directly by the Company's conflict minerals coordinator to non-RMAP conformant smelters.
  - The Company conducts a risk assessment of all suppliers, and suppliers are rated using an internally-developed risk matrix system based on the CMRT submitted. Each supplier is assigned a risk rating ranging from "Low Risk" to "Critical Risk," as further described below:
    - "Low Risk" means that a supplier is using 100% RMAP conformant smelters with a publicly-posted conflict minerals
      policy.
    - "Medium Risk" means that a supplier is using an active or non-conformant smelter but one which is identified as eligible to participate in the RMAP (or otherwise does not meet the criteria for Low Risk above).
    - "High Risk" or "Critical Risk" means that a supplier is either using unknown/alleged smelters or has no conflict minerals policy.
    - As in 2018, at the end of 2019, 100% of our suppliers received a "Low Risk" rating.





- At least once per year, or whenever there is a major CMRT revision release, all suppliers receive a letter through a third party solution provider for the Company's conflict free minerals campaign requesting them to:
  - continue to source ONLY from RMAP conformant smelters;
  - remove or replace non-conformant smelters;
  - · report immediately any risks or whenever smelters become non-RMAP conformant; and
  - identify all conflict minerals smelters in their supply chain and report back to the Company a completed latest CMRT.
- The status of suppliers' CMRTs is discussed internally in monthly reviews with the conflict minerals team and reported to senior management.
- OECD Step 4: Smelter audits / Independent auditing of smelters
  - The Company's conflict minerals coordinators are members of the RMI working teams that continue to encourage smelters to participate in the RMAP. To that end, the Company approaches, through direct communication and smelter outreach, both the smelters and their customers (the Company's suppliers) in our supply chain. The Company also contributes to thought leadership and participates in the relevant workgroups and taskforces within industry organizations and industry mechanisms.
- OECD Step 5: Report on supply chain due diligence / Inherent limitations on due diligence measures
  - The Company is an indirect purchaser of conflict minerals, and its due diligence measures provide reasonable, not absolute, assurance regarding the source and chain of custody of conflict minerals. The Company's due diligence processes seek data from its direct suppliers and those suppliers seek similar information within their supply chains to identify the original sources of the conflict minerals. We also rely, to a large extent, on information collected and provided by independent third party audit programs. Such sources of information may produce inaccurate or incomplete information and may be subject to fraud.
  - The Company prepares and submits a Conflict Minerals Report to the SEC on an annual basis. This report is made available to the public and posted on the Company's website.
  - The Company publicly posts and regularly updates its own company-level CMRT on its website at https://www.onsemi.com/pub/Collateral/CMRTRM.XLSX.

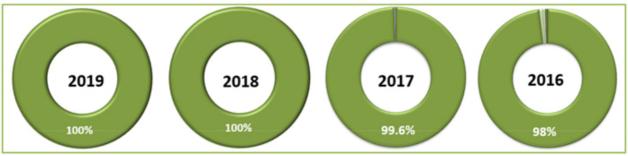
#### **Due Diligence Results**

Appendix B sets forth a list of smelters, provided by the Company's suppliers, from which the Company obtains certain of its products, including mineral type and standard smelter names. As described below, as of December 31, 2019, 100% of such smelters are on the RMAP Conformant Smelter List (the "Conformant Smelter List"). Although most of our suppliers provide us with product-level declarations, some of our suppliers continue to provide information at the "company" level. Declarations at the "company" level do not limit the information provided on smelters to those specific to the products that the supplier provides to us. Accordingly, the list of smelters that we include is likely to contain more facilities than those that actually process or refine the conflict minerals contained in our products.

As a result of its continuous due diligence with suppliers and smelters through RMI's smelter engagement team, information provided by its suppliers and other information available to it indicates that all of the smelters used were 100% RMAP conformant at the end of each of the 2019 and 2018 fiscal years as described in the chart below. The smelters or refiners statuses utilized in the chart below are defined as follows:

• "Conformant" means that a smelter has been audited and found conformant with the relevant RMAP protocol and is included in the CMRT Standard Smelter List.

- "Active" means that a smelter has engaged in the RMAP program but has not yet been determined to be conformant and is included in the CMRT Standard Smelter List.
- "Non-conformant" means that a smelter meets the definition of a smelter or refiner, is identified as an eligible smelter, has been audited but found not conformant under the RMAP standard, and is included in the CMRT Standard Smelter List.
- "Not Eligible" means that a smelter does not meet the definition of a smelter or refiner or is otherwise ineligible for the RMAP and is not included in the CMRT Standard Smelter List. This includes any alleged or unknown smelter that requires more research.



REPORTING YEAR	CONFORMANT	ACTIVE	NON-CONFORMANT	NOT ELIGIBLE	TOTAL
2019	100%	0%	0%	0%	100%
2018	100%	0%	0%	0%	100%
2017	99.6%	0%	0%	0.4%	100%
2016	98%	1.0%	0.5%	0.5%	100%

#### Mitigation of Risk Related to Benefiting Armed Groups

The Company continues to improve its processes and procedures to mitigate the risk that its necessary conflict minerals benefit armed groups. In particular, the Company has taken a number of steps to improve its due diligence processes, including, but not limited to, the following:

- The Company has incorporated conflict minerals compliance requirements into its supplier handbook for all suppliers.
- The Company has incorporated conflict minerals requirements and checkpoints into its business processes for new product introduction, new supplier qualification, and change management.
- The Company reviews and evaluates supplier data that it receives, including by comparison with RMI's RCOI report and other available data, with a view to increasing the reliability of its information and processes and the completeness and accuracy of such information.
- If a smelter becomes non-RMAP conformant at any time, the Company will send an outreach letter directly to such smelter and to the 3TG suppliers using it.

#### APPENDIX A

Below is a summary of the minerals used in ON Semiconductor products and country of origin information, collected as a result of the Company's RCOI and due diligence from all suppliers based on information available to the Company as of December 31, 2019.

	••	
Angola	Hungary	Portugal
Argentina	India	Puerto Rico
Australia	Indonesia	Qatar
Austria	Iran	Romania
Azerbaijan	Ireland	Russian Federation
Belarus	Israel	Rwanda
Belgium	Italy	Saudi Arabia
Benin	Ivory Coast	Senegal
Bolivia	Japan	Serbia
Bolivia (Plurinational State of)	Jordan	Sierra Leone
Botswana	Kazakhstan	Singapore
Brazil	Kazakhstan	Slovakia
Burkina Faso	Kenya	Slovenia
Burundi	Laos	Solomon Islands
Canada	Latvia	Somaliland
Chile	Lebanon	South Africa
China	Liberia	South Korea
Colombia	Lithuania	Spain
Congo, Democratic Republic of the	Luxembourg	Sudan
Croatia	Madagascar	Suriname
Cuba	Malaysia	Swaziland
Cyprus	Mali	Sweden
Czech Republic	Malta	Switzerland
Denmark Denmark	Mauritania	Taiwan
Dominican Republic	Mexico	Tajikistan
Ecuador	Monaco	Tanzania
Egypt	Mongolia	Thailand
El Salvador	Morocco	Togo
Eritrea	Mozambique	Tunisia
Estonia	Myanmar	Turkev
Ethiopia	Namibia	Uganda
Fiji	Netherlands	Ukraine
Finland	New Zealand	United Arab Emirates
France	Nicaragua	United Kingdom of Great Britain and Northern Ireland
Gabon	Niger	United States of America
Georgia	Nigeria	Uruguay
Germany	Norway	Uzbekistan
Ghana	Pakistan	Venezuela
Guatemala	Panama	Vietnam
Guinea	Papua New Guinea	Yemen
Guvana	Peru Peru	Zimbabwe
Honduras	Philippines	Zimodowe
Hong Kong	Poland	
Hong Kong	1 Oldilu	

#### APPENDIX B

## CONFLICT MINERALS SOURCING INFORMATION\* (as of December 31, 2019)

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
1	Gold	CID002763	8853 S.p.A.	ITALY
2	Gold	CID000015	Advanced Chemical Company	UNITED STATES OF AMERICA
3	Gold	CID000019	Aida Chemical Industries Co., Ltd.	JAPAN
4	Gold	CID000035	Allgemeine Gold-und Silberscheideanstalt A.G.	GERMANY
5	Gold	CID000041	Almalyk Mining and Metallurgical Complex (AMMC)	UZBEKISTAN
6	Gold	CID000058	AngloGold Ashanti Corrego do Sitio Mineracao	BRAZIL
7	Gold	CID000077	Argor-Heraeus S.A.	SWITZERLAND
8	Gold	CID000082	Asahi Pretec Corp.	JAPAN
9	Gold	CID000924	Asahi Refining Canada Ltd.	CANADA
10	Gold	CID000920	Asahi Refining USA Inc.	UNITED STATES OF AMERICA
11	Gold	CID000090	Asaka Riken Co., Ltd.	JAPAN
12	Gold	CID002850	AU Traders and Refiners	SOUTH AFRICA
13	Gold	CID002863	Bangalore Refinery	INDIA
14	Gold	CID000113	Aurubis AG	GERMANY
15	Gold	CID000128	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)	PHILIPPINES
16	Gold	CID000157	Boliden AB	SWEDEN
17	Gold	CID000176	C. Hafner GmbH + Co. KG	GERMANY
18	Gold	CID000185	CCR Refinery—Glencore Canada Corporation	CANADA
19	Gold	CID000189	Cendres + Metaux S.A.	SWITZERLAND
20	Gold	CID000233	Chimet S.p.A.	ITALY
21	Gold	CID000264	Chugai Mining	JAPAN
22	Gold	CID000362	DODUCO Contacts and Refining GmbH	GERMANY
23	Gold	CID000401	Dowa	JAPAN
24	Gold	CID003195	DS PRETECH Co., Ltd.	KOREA, REPUBLIC OF
25	Gold	CID000359	DSC (Do Sung Corporation)	KOREA, REPUBLIC OF
26	Gold	CID000425	Eco-System Recycling Co., Ltd.	JAPAN
27	Gold	CID002561	Emirates Gold DMCC	UNITED ARAB EMIRATES
28	Gold	CID002459	Geib Refining Corporation	UNITED STATES OF AMERICA
29	Gold	CID002243	Gold Refinery of Zijin Mining Group Co., Ltd.	CHINA
30	Gold	CID000689	HeeSung Metal Ltd.	KOREA, REPUBLIC OF
31	Gold	CID000694	Heimerle + Meule GmbH	GERMANY
32	Gold	CID000707	Heraeus Metals Hong Kong Ltd.	CHINA
33	Gold	CID000711	Heraeus Precious Metals GmbH & Co. KG	GERMANY
34	Gold	CID000801	Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.	CHINA
35	Gold	CID000807	Ishifuku Metal Industry Co., Ltd.	JAPAN
36	Gold	CID000814	Istanbul Gold Refinery	TURKEY
37	Gold	CID002765	Italpreziosi	ITALY
38	Gold	CID000823	Japan Mint	JAPAN
39	Gold	CID000855	Jiangxi Copper Co., Ltd.	CHINA
40	Gold	CID000929	JSC Uralelectromed	RUSSIAN FEDERATION

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
41	Gold	CID000937	JX Nippon Mining & Metals Co., Ltd.	JAPAN
42	Gold	CID000957	Kazzinc	KAZAKHSTAN
43	Gold	CID000969	Kennecott Utah Copper LLC	UNITED STATES OF AMERICA
44	Gold	CID002511	KGHM Polska Miedz Spolka Akcyjna	POLAND
45	Gold	CID000981	Kojima Chemicals Co., Ltd.	JAPAN
46	Gold	CID002605	Korea Zinc Co., Ltd.	KOREA, REPUBLIC OF
47	Gold	CID001029	Kyrgyzaltyn JSC	KYRGYZSTAN
48	Gold	CID002762	L'Orfebre S.A.	ANDORRA
49	Gold	CID001078	LS-NIKKO Copper Inc.	KOREA, REPUBLIC OF
50	Gold	CID002606	Marsam Metals	BRAZIL
51	Gold	CID001113	Materion	UNITED STATES OF AMERICA
52	Gold	CID001119	Matsuda Sangyo Co., Ltd.	JAPAN
53	Gold	CID001149	Metalor Technologies (Hong Kong) Ltd.	CHINA
54	Gold	CID001152	Metalor Technologies (Singapore) Pte., Ltd.	SINGAPORE
55	Gold	CID001147	Metalor Technologies (Suzhou) Ltd.	CHINA
56	Gold	CID001153	Metalor Technologies S.A.	SWITZERLAND
57	Gold	CID001157	Metalor USA Refining Corporation	UNITED STATES OF AMERICA
58	Gold	CID001161	Metalurgica Met-Mex Penoles S.A. De C.V.	MEXICO
59	Gold	CID001188	Mitsubishi Materials Corporation	JAPAN
60	Gold	CID001193	Mitsui Mining and Smelting Co., Ltd.	JAPAN
61	Gold	CID002509	MMTC-PAMP India Pvt., Ltd.	INDIA
62	Gold	CID001204	Moscow Special Alloys Processing Plant	RUSSIAN FEDERATION
63	Gold	CID001220	Nadir Metal Rafineri San. Ve Tic. A.S.	TURKEY
64	Gold	CID001259	Nihon Material Co., Ltd.	JAPAN
65	Gold	CID002779	Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH	AUSTRIA
66	Gold	CID001325	Ohura Precious Metal Industry Co., Ltd.	JAPAN
67	Gold	CID001326	OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)	RUSSIAN FEDERATION
68	Gold	CID000493	OJSC Novosibirsk Refinery	RUSSIAN FEDERATION
69	Gold	CID001352	PAMP S.A.	SWITZERLAND
70	Gold	CID002919	Planta Recuperadora de Metales SpA	CHILE
71	Gold	CID001386	Prioksky Plant of Non-Ferrous Metals	RUSSIAN FEDERATION
72	Gold	CID001397	PT Aneka Tambang (Persero) Tbk	INDONESIA
73	Gold	CID001498	PX Precinox S.A.	SWITZERLAND
74	Gold	CID001512	Rand Refinery (Pty) Ltd.	SOUTH AFRICA
75	Gold	CID002582	REMONDIS PMR B.V.	NETHERLANDS
76	Gold	CID001534	Royal Canadian Mint	CANADA
77	Gold	CID002761	SAAMP	FRANCE
78	Gold	CID002973	Safimet S.p.A	ITALY
79	Gold	CID001555	Samduck Precious Metals	KOREA, REPUBLIC OF
80	Gold	CID002777	SAXONIA Edelmetalle GmbH	GERMANY
81	Gold	CID001585	SEMPSA Joyeria Plateria S.A.	SPAIN
82	Gold	CID001622	Shandong Zhaojin Gold & Silver Refinery Co., Ltd.	CHINA
83	Gold	CID001736	Sichuan Tianze Precious Metals Co., Ltd.	CHINA
84	Gold	CID002516	Singway Technology Co., Ltd.	TAIWAN, PROVINCE OF CHINA
85	Gold	CID001756	SOE Shyolkovsky Factory of Secondary Precious Metals	RUSSIAN FEDERATION

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
86	Gold	CID001761	Solar Applied Materials Technology Corp.	TAIWAN, PROVINCE OF CHINA
87	Gold	CID001798	Sumitomo Metal Mining Co., Ltd.	JAPAN
88	Gold	CID002918	SungEel HiMetal Co., Ltd.	KOREA, REPUBLIC OF
89	Gold	CID002580	T.C.A S.p.A	ITALY
90	Gold	CID001875	Tanaka Kikinzoku Kogyo K.K.	JAPAN
91	Gold	CID001916	The Refinery of Shandong Gold Mining Co., Ltd.	CHINA
92	Gold	CID001938	Tokuriki Honten Co., Ltd.	JAPAN
93	Gold	CID001955	Torecom	KOREA, REPUBLIC OF
94	Gold	CID001977	Umicore Brasil Ltda.	BRAZIL
95	Gold	CID002314	Umicore Precious Metals Thailand	THAILAND
96	Gold	CID001980	Umicore S.A. Business Unit Precious Metals Refining	BELGIUM
97	Gold	CID001993	United Precious Metal Refining, Inc.	UNITED STATES OF AMERICA
98	Gold	CID002003	Valcambi S.A.	SWITZERLAND
99	Gold	CID002030	Western Australian Mint (T/a The Perth Mint)	AUSTRALIA
100	Gold	CID002778	WIELAND Edelmetalle GmbH	GERMANY
101	Gold	CID002100	Yamakin Co., Ltd.	JAPAN
102	Gold	CID002129	Yokohama Metal Co., Ltd.	JAPAN
103	Gold	CID002224	Zhongyuan Gold Smelter of Zhongjin Gold Corporation	CHINA
104	Tantalum	CID000092	Asaka Riken Co., Ltd.	JAPAN
.05	Tantalum	CID000211	Changsha South Tantalum Niobium Co., Ltd.	CHINA
106	Tantalum	CID002504	D Block Metals, LLC	UNITED STATES OF AMERICA
107	Tantalum	CID000456	Exotech Inc.	UNITED STATES OF AMERICA
108	Tantalum	CID000460	F&X Electro-Materials Ltd.	CHINA
109	Tantalum	CID002505	FIR Metals & Resource Ltd.	CHINA
110	Tantalum	CID002558	Global Advanced Metals Aizu	JAPAN
111	Tantalum	CID002557	Global Advanced Metals Bovertown	UNITED STATES OF AMERICA
112	Tantalum	CID000616	Guangdong Zhiyuan New Material Co., Ltd.	CHINA
13	Tantalum	CID002544	H.C. Starck Co., Ltd.	THAILAND
14	Tantalum	CID002547	H.C. Starck Hermsdorf GmbH	GERMANY
15	Tantalum	CID002548	H.C. Starck Inc.	UNITED STATES OF AMERICA
16	Tantalum	CID002549	H.C. Starck Ltd.	JAPAN
17	Tantalum	CID002550	H.C. Starck Smelting GmbH & Co. KG	GERMANY
18	Tantalum	CID002545	H.C. Starck Tantalum and Niobium GmbH	GERMANY
119	Tantalum	CID002492	Hengyang King Xing Lifeng New Materials Co., Ltd.	CHINA
120	Tantalum	CID002512	Jiangxi Dinghai Tantalum & Niobium Co., Ltd.	CHINA
121	Tantalum	CID002312 CID002842	Jiangxi Tuohong New Raw Material	CHINA
22	Tantalum	CID002042 CID003191	Jiujiang Janny New Material Co., Ltd.	CHINA
23	Tantalum	CID003191 CID000914	JiuJiang JinXin Nonferrous Metals Co., Ltd.	CHINA
24	Tantalum	CID000917	Jiujiang Tanbre Co., Ltd.	CHINA
.25	Tantalum	CID000517 CID002506	Jiujiang Zhongao Tantalum & Niobium Co., Ltd.	CHINA
26	Tantalum	CID002500 CID002539	KEMET Blue Metals	MEXICO
120	Tantalum	CID002559 CID002568	KEMET Blue Powder	UNITED STATES OF AMERICA
127	Tantalum	CID002308 CID001076	LSM Brasil S.A.	BRAZIL
129	Tantalum	CID001070 CID001163	Metallurgical Products India Pvt., Ltd.	INDIA
130	Tantalum	CID001103 CID001175	Mineracao Taboca S.A.	BRAZIL
130	rdiildiuiii	CID0011/5	Williefacau fauuca S.A.	DRALIL

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
131	Tantalum	CID001192	Mitsui Mining and Smelting Co., Ltd.	JAPAN
132	Tantalum	CID001277	Ningxia Orient Tantalum Industry Co., Ltd.	CHINA
133	Tantalum	CID002847	Power Resources Ltd.	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
134	Tantalum	CID001508	QuantumClean	UNITED STATES OF AMERICA
135	Tantalum	CID002707	Resind Industria e Comercio Ltda.	BRAZIL
136	Tantalum	CID001522	RFH Tantalum Smeltery Co., Ltd./Yanling Jincheng Tantalum & Niobium Co., Ltd.	CHINA
137	Tantalum	CID001769	Solikamsk Magnesium Works OAO	RUSSIAN FEDERATION
138	Tantalum	CID001869	Taki Chemical Co., Ltd.	JAPAN
139	Tantalum	CID001891	Telex Metals	UNITED STATES OF AMERICA
140	Tantalum	CID001969	Ulba Metallurgical Plant JSC	KAZAKHSTAN
141	Tantalum	CID002508	XinXing HaoRong Electronic Material Co., Ltd.	CHINA
142	Tin	CID000292	Alpha	UNITED STATES OF AMERICA
143	Tin	CID000228	Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.	CHINA
144	Tin	CID003190	Chifeng Dajingzi Tin Industry Co., Ltd.	CHINA
145	Tin	CID001070	China Tin Group Co., Ltd.	CHINA
146	Tin	CID000402	Dowa	JAPAN
147	Tin	CID000438	EM Vinto	BOLIVIA (PLURINATIONAL STATE OF)
148	Tin	CID000468	Fenix Metals	POLAND
149	Tin	CID002848	Gejiu Fengming Metallurgy Chemical Plant	CHINA
150	Tin	CID002048	Gejiu Kai Meng Industry and Trade LLC	CHINA
151	Tin	CID000538	Gejiu Non-Ferrous Metal Processing Co., Ltd.	CHINA
152	Tin	CID000338	Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.	CHINA
153	Tin	CID001500	Gejiu Zili Mining And Metallurgy Co., Ltd.	CHINA
154	Tin	CID000333	Guangdong Hanhe Non-Ferrous Metal Co., Ltd.	CHINA
155	Tin	CID003110 CID002849	Guanyang Guida Nonferrous Metal Smelting Plant	CHINA
156	Tin	CID002849 CID002844	HuiChang Hill Tin Industry Co., Ltd.	CHINA
157	Tin	CID002044 CID000760	Huichang Jinshunda Tin Co., Ltd.	CHINA
158	Tin	CID000700 CID001231	Jiangxi New Nanshan Technology Ltd.	CHINA
159	Tin	CID001231 CID003379	Ma'anshan Weitai Tin Co., Ltd.	CHINA
160	Tin	CID003379 CID002468	Magnu's Minerais Metais e Ligas Ltda.	BRAZIL
161	Tin	CID002466 CID001105	Malaysia Smelting Corporation (MSC)	MALAYSIA
162	Tin	CID001103 CID002500	Melt Metais e Ligas S.A.	BRAZIL
163	Tin		Metallic Resources, Inc.	
		CID001142		UNITED STATES OF AMERICA
164	Tin	CID002773	Metallo Belgium N.V.	BELGIUM
165	Tin	CID002774	Metallo Spain S.L.U.	SPAIN
166	Tin	CID001173	Mineracao Taboca S.A.	BRAZIL
167	Tin	CID001182	Minsur	PERU
168	Tin	CID001191	Mitsubishi Materials Corporation	JAPAN
169	Tin	CID001314	O.M. Manufacturing (Thailand) Co., Ltd.	THAILAND
170	Tin	CID002517	O.M. Manufacturing Philippines, Inc.	PHILIPPINES
171	Tin	CID001337	Operaciones Metalurgicas S.A.	BOLIVIA (PLURINATIONAL STATE OF)
172	Tin	CID001399	PT Artha Cipta Langgeng	INDONESIA
173	Tin	CID001453	PT Mitra Stania Prima	INDONESIA
174	Tin	CID001460	PT Refined Bangka Tin	INDONESIA

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
175	Tin	CID001477	PT Timah Tbk Kundur	INDONESIA
176	Tin	CID001482	PT Timah Tbk Mentok	INDONESIA
177	Tin	CID002706	Resind Industria e Comercio Ltda.	BRAZIL
178	Tin	CID001539	Rui Da Hung	TAIWAN, PROVINCE OF CHINA
179	Tin	CID001758	Soft Metais Ltda.	BRAZIL
180	Tin	CID002834	Thai Nguyen Mining and Metallurgy Co., Ltd.	VIET NAM
181	Tin	CID001898	Thaisarco	THAILAND
182	Tin	CID003325	Tin Technology & Refining	UNITED STATES OF AMERICA
183	Tin	CID002036	White Solder Metalurgia e Mineracao Ltda.	BRAZIL
184	Tin	CID002158	Yunnan Chengfeng Non-ferrous Metals Co., Ltd.	CHINA
185	Tin	CID002180	Yunnan Tin Company Limited	CHINA
186	Tin	CID003397	Yunnan Yunfan Non-ferrous Metals Co., Ltd.	CHINA
187	Tungsten	CID000004	A.L.M.T. Corp.	JAPAN
188	Tungsten	CID002833	ACL Metais Eireli	BRAZIL
189	Tungsten	CID002513	Chenzhou Diamond Tungsten Products Co., Ltd.	CHINA
190	Tungsten	CID000258	Chongyi Zhangyuan Tungsten Co., Ltd.	CHINA
191	Tungsten	CID000499	Fujian Jinxin Tungsten Co., Ltd.	CHINA
192	Tungsten	CID002645	Ganzhou Haichuang Tungsten Co., Ltd.	CHINA
193	Tungsten	CID000875	Ganzhou Huaxing Tungsten Products Co., Ltd.	CHINA
194	Tungsten	CID002315	Ganzhou Jiangwu Ferrotungsten Co., Ltd.	CHINA
195	Tungsten	CID002494	Ganzhou Seadragon W & Mo Co., Ltd.	CHINA
196	Tungsten	CID000568	Global Tungsten & Powders Corp.	UNITED STATES OF AMERICA
197	Tungsten	CID000218	Guangdong Xianglu Tungsten Co., Ltd.	CHINA
198	Tungsten	CID002542	H.C. Starck Smelting GmbH & Co. KG	GERMANY
199	Tungsten	CID002541	H.C. Starck Tungsten GmbH	GERMANY
200	Tungsten	CID002541	Hunan Chenzhou Mining Co., Ltd.	CHINA
201	Tungsten	CID002579	Hunan Chuangda Vanadium Tungsten Co., Ltd. Wuji	CHINA
202	Tungsten	CID000769	Hunan Chunchang Nonferrous Metals Co., Ltd.	CHINA
203	Tungsten	CID002649	Hydrometallurg, JSC	RUSSIAN FEDERATION
204	Tungsten	CID000825	Japan New Metals Co., Ltd.	JAPAN
205	Tungsten	CID002551	Jiangwu H.C. Starck Tungsten Products Co., Ltd.	CHINA
206	Tungsten	CID002331	Jiangxi Gan Bei Tungsten Co., Ltd.	CHINA
207	Tungsten	CID002321	Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.	CHINA
208	Tungsten	CID002317	Jiangxi Xinsheng Tungsten Industry Co., Ltd.	CHINA
209	Tungsten	CID002317	Jiangxi Yaosheng Tungsten Co., Ltd.	CHINA
210	Tungsten	CID002910	Kennametal Fallon	UNITED STATES OF AMERICA
211	Tungsten	CID000300	Kennametal Huntsville	UNITED STATES OF AMERICA
212	Tungsten	CID003388	KGETS Co., Ltd.	KOREA, REPUBLIC OF
213	Tungsten	CID003300	Malipo Haiyu Tungsten Co., Ltd.	CHINA
214	Tungsten	CID002313	Moliren Ltd.	RUSSIAN FEDERATION
215	Tungsten	CID002543	Masan Tungsten Chemical LLC (MTC)	VIET NAM
216	Tungsten	CID002543 CID002589	Niagara Refining LLC	UNITED STATES OF AMERICA
217	Tungsten	CID002369 CID002827	Philippine Chuangxin Industrial Co., Inc.	PHILIPPINES
217	Tungsten	CID002827 CID001889	Tejing (Vietnam) Tungsten Co., Ltd.	VIET NAM
219	Tungsten	CID001889 CID002724	Unecha Refractory metals plant	RUSSIAN FEDERATION
_13	Tungaten	GID002/24	Onecha retractory metals plant	ROSSINIVIEDERATION

SN	METAL	CID	STANDARD SMELTER NAME	SMELTER COUNTRY
220	Tungsten	CID002044	Wolfram Bergbau und Hutten AG	AUSTRIA
221	Tungsten	CID002843	Woltech Korea Co., Ltd.	KOREA, REPUBLIC OF
222	Tungsten	CID002320	Xiamen Tungsten (H.C.) Co., Ltd.	CHINA
223	Tungsten	CID002082	Xiamen Tungsten Co., Ltd.	CHINA
224	Tungsten	CID002830	Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.	CHINA
225	Tungsten	CID002095	Xinhai Rendan Shaoguan Tungsten Co., Ltd.	CHINA
226	Tungsten	CID002502	Asia Tungsten Products Vietnam Ltd.	VIET NAM

<sup>\*</sup> Note that the above reported standard smelter and refiner facility names and smelter locations were taken from an RMI report as of December 31, 2019.