



# Smelter and Refiner List

This list includes the facilities which, to the extent known, processed Tin, Tantalum, Tungsten, Gold, and Cobalt in Intel products as of March 3, 2020. Intel conducts no direct transactions and has no contractual relationship with these smelter and refiner facilities nor their sources of ore.

| Metal    | Smelter or Refinery Facility Name <sup>†</sup>     | Country <sup>†</sup>     |
|----------|--|--------------------------|
| Tantalum | Asaka Riken Co., Ltd.*                             | JAPAN                    |
| Tantalum | Changsha South Tantalum Niobium Co., Ltd.*         | CHINA                    |
| Tantalum | D Block Metals, LLC*                               | UNITED STATES OF AMERICA |
| Tantalum | Exotech Inc.*                                      | UNITED STATES OF AMERICA |
| Tantalum | F&X Electro-Materials Ltd.*                        | CHINA                    |
| Tantalum | FIR Metals & Resource Ltd.*                        | CHINA                    |
| Tantalum | Global Advanced Metals Aizu*                       | JAPAN                    |
| Tantalum | Global Advanced Metals Boyertown*                  | UNITED STATES OF AMERICA |
| Tantalum | Guangdong Zhiyuan New Material Co., Ltd.*          | CHINA                    |
| Tantalum | H.C. Starck Co., Ltd.*                             | THAILAND                 |
| Tantalum | H.C. Starck Tantalum and Niobium GmbH*             | GERMANY                  |
| Tantalum | H.C. Starck Hermsdorf GmbH*                        | GERMANY                  |
| Tantalum | H.C. Starck Inc.*                                  | UNITED STATES OF AMERICA |
| Tantalum | H.C. Starck Ltd.*                                  | JAPAN                    |
| Tantalum | H.C. Starck Smelting GmbH & Co. KG*                | GERMANY                  |
| Tantalum | Hengyang King Xing Lifeng New Materials Co., Ltd.* | CHINA                    |
| Tantalum | Jiangxi Dinghai Tantalum & Niobium Co., Ltd.*      | CHINA                    |
| Tantalum | Jiujiang JinXin Nonferrous Metals Co., Ltd.*       | CHINA                    |
| Tantalum | Jiujiang Tanbre Co., Ltd.*                         | CHINA                    |
| Tantalum | Jiujiang Zhongao Tantalum & Niobium Co., Ltd.*     | CHINA                    |

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|----------|--|--------------------------|
| Tantalum | KEMET Blue Metals*                                 | MEXICO                   |
| Tantalum | LSM Brasil S.A.*                                   | BRAZIL                   |
| Tantalum | Metallurgical Products India Pvt., Ltd.*           | INDIA                    |
| Tantalum | Mineracao Taboca S.A.*                             | BRAZIL                   |
| Tantalum | Mitsui Mining and Smelting Co., Ltd.*              | JAPAN                    |
| Tantalum | NPM Silmet AS*                                     | ESTONIA                  |
| Tantalum | Ningxia Orient Tantalum Industry Co., Ltd.*        | CHINA                    |
| Tantalum | QuantumClean*                                      | UNITED STATES OF AMERICA |
| Tantalum | Resind Industria e Comercio Ltda.*                 | BRAZIL                   |
| Tantalum | Yanling Jincheng Tantalum & Niobium Co., Ltd.*     | CHINA                    |
| Tantalum | Solikamsk Magnesium Works OAO*                     | RUSSIAN FEDERATION       |
| Tantalum | Taki Chemical Co., Ltd.*                           | JAPAN                    |
| Tantalum | Telex Metals*                                      | UNITED STATES OF AMERICA |
| Tantalum | Ulba Metallurgical Plant JSC*                      | KAZAKHSTAN               |
| Tantalum | XinXing HaoRong Electronic Material Co., Ltd.*     | CHINA                    |
| Tantalum | Jiangxi Tuohong New Raw Material*                  | CHINA                    |
| Tantalum | PRG Dooel*   | NORTH MACEDONIA          |
| Tin      | Ma'anshan Weitai Tin Co., Ltd.*                    | CHINA                    |
| Tin      | Chifeng Dajingzi Tin Industry Co., Ltd.*           | CHINA                    |
| Tin      | Tin Technology & Refining*                         | UNITED STATES OF AMERICA |
| Tin      | Yunnan Yunfan Non-ferrous Metals Co., Ltd.*        | CHINA                    |
| Tin      | Alpha*   | UNITED STATES OF AMERICA |
| Tin      | Chenzhou Yunxiang Mining and Metallurgy Co., Ltd.* | CHINA                    |
| Tin      | China Tin Group Co., Ltd.*                         | CHINA                    |
| Tin      | Dowa*  | JAPAN                    |
| Tin      | Metallo Spain S.L.U.*                              | SPAIN                    |
| Tin      | EM Vinto*  | BOLIVIA                  |
| Tin      | Fenix Metals*                                      | POLAND                   |
| Tin      | Gejiu Kai Meng Industry and Trade LLC*             | CHINA                    |
| Tin      | Gejiu Non-Ferrous Metal Processing Co., Ltd.*      | CHINA                    |
| Tin      | Gejiu Yunxin Nonferrous Electrolysis Co., Ltd.*    | CHINA                    |
| Tin      | Gejiu Zili Mining And Metallurgy Co., Ltd.*        | CHINA                    |
| Tin      | Huichang Jinshunda Tin Co., Ltd.*                  | CHINA                    |
| Tin      | Magnu's Minerais Metais e Ligas Ltda.*             | BRAZIL                   |
| Tin      | Malaysia Smelting Corporation (MSC)*               | MALAYSIA                 |
| Tin      | Melt Metais e Ligas S.A.*                          | BRAZIL                   |

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|------|---|--------------------------|
| Tin  | Metallic Resources, Inc.*                           | UNITED STATES OF AMERICA |
| Tin  | Metallo Belgium N.V.*                               | BELGIUM                  |
| Tin  | Mineracao Taboca S.A.*                              | BRAZIL                   |
| Tin  | Minsur*   | PERU                     |
| Tin  | Mitsubishi Materials Corporation*                   | JAPAN                    |
| Tin  | O.M. Manufacturing (Thailand) Co., Ltd.*            | THAILAND                 |
| Tin  | O.M. Manufacturing Philippines, Inc.*               | PHILIPPINES              |
| Tin  | Operaciones Metalurgicas S.A.*                      | BOLIVIA                  |
| Tin  | PT Artha Cipta Langgeng*                            | INDONESIA                |
| Tin  | PT ATD Makmur Mandiri Jaya*                         | INDONESIA                |
| Tin  | PT Mitra Stania Prima*                              | INDONESIA                |
| Tin  | PT Refined Bangka Tin*                              | INDONESIA                |
| Tin  | PT Timah Tbk Kundur*                                | INDONESIA                |
| Tin  | PT Timah Tbk Mentok*                                | INDONESIA                |
| Tin  | Resind Industria e Comercio Ltda.*                  | BRAZIL                   |
| Tin  | Rui Da Hung*  | TAIWAN                   |
| Tin  | Soft Metais Ltda.*                                  | BRAZIL                   |
| Tin  | Thaisarco*  | THAILAND                 |
| Tin  | White Solder Metalurgia e Mineracao Ltda.*          | BRAZIL                   |
| Tin  | Yunnan Chengfeng Non-ferrous Metals Co., Ltd.*      | CHINA                    |
| Tin  | Yunnan Tin Company Limited*                         | CHINA                    |
| Tin  | Thai Nguyen Mining and Metallurgy Co., Ltd.*        | VIETNAM                  |
| Tin  | HuiChang Hill Tin Industry Co., Ltd.*               | CHINA                    |
| Tin  | Guanyang Guida Nonferrous Metal Smelting Plant*     | CHINA                    |
| Tin  | Guangdong Hanhe Non-Ferrous Metal Co., Ltd.*        | CHINA                    |
| Tin  | Dongguan CiEXPO Environmental Engineering Co., Ltd. | CHINA                    |
| Gold | DS PRETECH Co., Ltd.*                               | KOREA, REPUBLIC OF       |
| Gold | Eco-System Recycling Co., Ltd. West Plant*          | JAPAN                    |
| Gold | Eco-System Recycling Co., Ltd. North Plant*         | JAPAN                    |
| Gold | 8853 S.p.A.*  | ITALY                    |
| Gold | Advanced Chemical Company*                          | UNITED STATES OF AMERICA |
| Gold | Aida Chemical Industries Co., Ltd.*                 | JAPAN                    |
| Gold | Al Etihad Gold Refinery DMCC*                       | UNITED ARAB EMIRATES     |
| Gold | Allgemeine Gold-und Silberscheideanstalt A.G.*      | GERMANY                  |
| Gold | Almalyk Mining and Metallurgical Complex (AMMC)*    | UZBEKISTAN               |
| Gold | AngloGold Ashanti Corrego do Sitio Mineracao*       | BRAZIL                   |

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|------|--|--------------------------|
| Gold | Argor-Heraeus S.A.*  | SWITZERLAND              |
| Gold | Asahi Pretec Corp.*  | JAPAN                    |
| Gold | Asahi Refining Canada Ltd.*                                      | CANADA                   |
| Gold | Asahi Refining USA Inc.*   | UNITED STATES OF AMERICA |
| Gold | Asaka Riken Co., Ltd.*   | JAPAN                    |
| Gold | Aurubis AG*  | GERMANY                  |
| Gold | Bangko Sentral ng Pilipinas (Central Bank of the Philippines)*   | PHILIPPINES              |
| Gold | Boliden AB*  | SWEDEN                   |
| Gold | C. Hafner GmbH + Co. KG*   | GERMANY                  |
| Gold | CCR Refinery - Glencore Canada Corporation*                      | CANADA                   |
| Gold | Cendres + Metaux S.A.*   | SWITZERLAND              |
| Gold | Chimet S.p.A.*   | ITALY                    |
| Gold | Chugai Mining*   | JAPAN                    |
| Gold | Daye Non-Ferrous Metals Mining Ltd.*                             | CHINA                    |
| Gold | DSC (Do Sung Corporation)*                                       | KOREA, REPUBLIC OF       |
| Gold | DODUCO Contacts and Refining GmbH*                               | GERMANY                  |
| Gold | Dowa*  | JAPAN                    |
| Gold | Eco-System Recycling Co., Ltd. East Plant*                       | JAPAN                    |
| Gold | Emirates Gold DMCC*  | UNITED ARAB EMIRATES     |
| Gold | Geib Refining Corporation*                                       | UNITED STATES OF AMERICA |
| Gold | LT Metal Ltd.*   | KOREA, REPUBLIC OF       |
| Gold | Heimerle + Meule GmbH*   | GERMANY                  |
| Gold | Heraeus Metals Hong Kong Ltd.*                                   | CHINA                    |
| Gold | Heraeus Precious Metals GmbH & Co. KG*                           | GERMANY                  |
| Gold | Inner Mongolia Qiankun Gold and Silver Refinery Share Co., Ltd.* | CHINA                    |
| Gold | Ishifuku Metal Industry Co., Ltd.*                               | JAPAN                    |
| Gold | Istanbul Gold Refinery*  | TURKEY                   |
| Gold | Italpreziosi*  | ITALY                    |
| Gold | Japan Mint*  | JAPAN                    |
| Gold | Jiangxi Copper Co., Ltd.*  | CHINA                    |
| Gold | JSC Uralelectromed*  | RUSSIAN FEDERATION       |
| Gold | JX Nippon Mining & Metals Co., Ltd.*                             | JAPAN                    |
| Gold | Kazzinc*   | KAZAKHSTAN               |
| Gold | Kennecott Utah Copper LLC*                                       | UNITED STATES OF AMERICA |
| Gold | KGHM Polska Miedz Spolka Akcyjna*                                | POLAND                   |
| Gold | Kojima Chemicals Co., Ltd.*                                      | JAPAN                    |

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| Gold | Korea Zinc Co., Ltd.*  | KOREA, REPUBLIC OF       |
| Gold | Kyrgyzaltyn JSC*   | KYRGYZSTAN               |
| Gold | L'Orfebre S.A.*  | ANDORRA                  |
| Gold | LS-NIKKO Copper Inc.*  | KOREA, REPUBLIC OF       |
| Gold | Marsam Metals*   | BRAZIL                   |
| Gold | Materion*  | UNITED STATES OF AMERICA |
| Gold | Matsuda Sangyo Co., Ltd.*  | JAPAN                    |
| Gold | Metalor Technologies (Hong Kong) Ltd.*                                       | CHINA                    |
| Gold | Metalor Technologies (Singapore) Pte., Ltd.*                                 | SINGAPORE                |
| Gold | Metalor Technologies (Suzhou) Ltd.*  | CHINA                    |
| Gold | Metalor Technologies S.A.*   | SWITZERLAND              |
| Gold | Metalor USA Refining Corporation*  | UNITED STATES OF AMERICA |
| Gold | Metalurgica Met-Mex Penoles S.A. De C.V.*                                    | MEXICO                   |
| Gold | Mitsubishi Materials Corporation*  | JAPAN                    |
| Gold | Mitsui Mining and Smelting Co., Ltd.*  | JAPAN                    |
| Gold | MMTC-PAMP India Pvt., Ltd.*  | INDIA                    |
| Gold | Moscow Special Alloys Processing Plant*                                      | RUSSIAN FEDERATION       |
| Gold | Nadir Metal Rafineri San. Ve Tic. A.S.*                                      | TURKEY                   |
| Gold | Navoi Mining and Metallurgical Combinat*                                     | UZBEKISTAN               |
| Gold | Nihon Material Co., Ltd.*  | JAPAN                    |
| Gold | Ogussa Osterreichische Gold- und Silber-Scheideanstalt GmbH*                 | AUSTRIA                  |
| Gold | Ohura Precious Metal Industry Co., Ltd.*                                     | JAPAN                    |
| Gold | OJSC "The Gulidov Krasnoyarsk Non-Ferrous Metals Plant" (OJSC Krastsvetmet)* | RUSSIAN FEDERATION       |
| Gold | OJSC Novosibirsk Refinery*   | RUSSIAN FEDERATION       |
| Gold | PAMP S.A.*   | SWITZERLAND              |
| Gold | Prioksky Plant of Non-Ferrous Metals*  | RUSSIAN FEDERATION       |
| Gold | PT Aneka Tambang (Persero) Tbk*  | INDONESIA                |
| Gold | PX Precinox S.A.*  | SWITZERLAND              |
| Gold | Rand Refinery (Pty) Ltd.*  | SOUTH AFRICA             |
| Gold | REMONDIS PMR B.V.*   | NETHERLANDS              |
| Gold | Royal Canadian Mint*   | CANADA                   |
| Gold | SAAMP*   | FRANCE                   |
| Gold | Samduck Precious Metals*   | KOREA, REPUBLIC OF       |
| Gold | SAXONIA Edelmetalle GmbH*  | GERMANY                  |
| Gold | SEMPSA Joyeria Plateria S.A.*  | SPAIN                    |
| Gold | Shandong Zhaojin Gold & Silver Refinery Co., Ltd.*                           | CHINA                    |

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| Gold     | Sichuan Tianze Precious Metals Co., Ltd.*             | CHINA                    |
| Gold     | Singway Technology Co., Ltd.*                         | TAIWAN                   |
| Gold     | SOE Shyolkovsky Factory of Secondary Precious Metals* | RUSSIAN FEDERATION       |
| Gold     | Solar Applied Materials Technology Corp.*             | TAIWAN                   |
| Gold     | Sumitomo Metal Mining Co., Ltd.*                      | JAPAN                    |
| Gold     | T.C.A S.p.A*  | ITALY                    |
| Gold     | Tanaka Kikinzoku Kogyo K.K.*                          | JAPAN                    |
| Gold     | Great Wall Precious Metals Co., Ltd. of CBPM*         | CHINA                    |
| Gold     | The Refinery of Shandong Gold Mining Co., Ltd.*       | CHINA                    |
| Gold     | Tokuriki Honten Co., Ltd.*                            | JAPAN                    |
| Gold     | Torecom*  | KOREA, REPUBLIC OF       |
| Gold     | Umicore Brasil Ltda.*                                 | BRAZIL                   |
| Gold     | Umicore Precious Metals Thailand*                     | THAILAND                 |
| Gold     | Umicore S.A. Business Unit Precious Metals Refining*  | BELGIUM                  |
| Gold     | United Precious Metal Refining, Inc.*                 | UNITED STATES OF AMERICA |
| Gold     | Valcambi S.A.*  | SWITZERLAND              |
| Gold     | Western Australian Mint (T/a The Perth Mint)*         | AUSTRALIA                |
| Gold     | WIELAND Edelmetalle GmbH*                             | GERMANY                  |
| Gold     | Yamakin Co., Ltd.*                                    | JAPAN                    |
| Gold     | Yokohama Metal Co., Ltd.*                             | JAPAN                    |
| Gold     | Zhongyuan Gold Smelter of Zhongjin Gold Corporation*  | CHINA                    |
| Gold     | Gold Refinery of Zijin Mining Group Co., Ltd.*        | CHINA                    |
| Gold     | AU Traders and Refiners*                              | SOUTH AFRICA             |
| Gold     | Bangalore Refinery*                                   | INDIA                    |
| Gold     | SungEel HiMetal Co., Ltd.*                            | KOREA, REPUBLIC OF       |
| Gold     | Planta Recuperadora de Metales SpA*                   | CHILE                    |
| Gold     | Safimet S.p.A*  | ITALY                    |
| Gold     | SAFINA A.S.**   | CZECH REPUBLIC           |
| Tungsten | KGETS Co., Ltd.*                                      | KOREA, REPUBLIC OF       |
| Tungsten | Lianyou Metals Co., Ltd.*                             | TAIWAN                   |
| Tungsten | A.L.M.T. Corp.*                                       | JAPAN                    |
| Tungsten | Chenzhou Diamond Tungsten Products Co., Ltd.*         | CHINA                    |
| Tungsten | Chongyi Zhangyuan Tungsten Co., Ltd.*                 | CHINA                    |
| Tungsten | Fujian Jinxin Tungsten Co., Ltd.*                     | CHINA                    |
| Tungsten | Ganzhou Haichuang Tungsten Co., Ltd.*                 | CHINA                    |
| Tungsten | Ganzhou Huaxing Tungsten Products Co., Ltd.*          | CHINA                    |

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| Tungsten | Ganzhou Seadragon W & Mo Co., Ltd.*                            | CHINA                    |
| Tungsten | Global Tungsten & Powders Corp.*                               | UNITED STATES OF AMERICA |
| Tungsten | Guangdong Xianglu Tungsten Co., Ltd.*                          | CHINA                    |
| Tungsten | H.C. Starck Tungsten GmbH*                                     | GERMANY                  |
| Tungsten | H.C. Starck Smelting GmbH & Co. KG*                            | GERMANY                  |
| Tungsten | Hunan Chenzhou Mining Co., Ltd.*                               | CHINA                    |
| Tungsten | Hunan Chunchang Nonferrous Metals Co., Ltd.*                   | CHINA                    |
| Tungsten | Hydrometallurg, JSC*   | RUSSIAN FEDERATION       |
| Tungsten | Japan New Metals Co., Ltd.*                                    | JAPAN                    |
| Tungsten | Jiangwu H.C. Starck Tungsten Products Co., Ltd.*               | CHINA                    |
| Tungsten | Jiangxi Gan Bei Tungsten Co., Ltd.*                            | CHINA                    |
| Tungsten | Jiangxi Tonggu Non-ferrous Metallurgical & Chemical Co., Ltd.* | CHINA                    |
| Tungsten | Jiangxi Xinsheng Tungsten Industry Co., Ltd.*                  | CHINA                    |
| Tungsten | Jiangxi Yaosheng Tungsten Co., Ltd.*                           | CHINA                    |
| Tungsten | Kennametal Huntsville*   | UNITED STATES OF AMERICA |
| Tungsten | Malipo Haiyu Tungsten Co., Ltd.*                               | CHINA                    |
| Tungsten | Niagara Refining LLC*  | UNITED STATES OF AMERICA |
| Tungsten | Masan Tungsten Chemical LLC (MTC)*                             | VIETNAM                  |
| Tungsten | Tejing (Vietnam) Tungsten Co., Ltd.*                           | VIETNAM                  |
| Tungsten | Wolfram Bergbau und Hutten AG*                                 | AUSTRIA                  |
| Tungsten | Xiamen Tungsten (H.C.) Co., Ltd.*                              | CHINA                    |
| Tungsten | Xiamen Tungsten Co., Ltd.*                                     | CHINA                    |
| Tungsten | Xinhai Rendan Shaoguan Tungsten Co., Ltd.*                     | CHINA                    |
| Tungsten | Philippine Chuangxin Industrial Co., Inc.*                     | PHILIPPINES              |
| Tungsten | Xinfeng Huarui Tungsten & Molybdenum New Material Co., Ltd.*   | CHINA                    |
| Tungsten | Hunan Litian Tungsten Industry Co., Ltd.*                      | CHINA                    |
| Tungsten | Jiangxi Xianglu Tungsten Co., Ltd.**                           | CHINA                    |
| Cobalt   | Umicore Finland Oy*  | FINLAND                  |
| Cobalt   | Umicore Olen*  | BELGIUM                  |
| Cobalt   | Compagnie de Tifnout Tiranimine*                               | MOROCCO                  |
| Cobalt   | Guangdong Jiana Energy Technology Co., Ltd.**                  | CHINA                    |
| Cobalt   | Tianjin Maolian Science & Technology Co., Ltd.**               | CHINA                    |
| Cobalt   | Ganzhou Highpower Technology Co., Ltd.**                       | CHINA                    |
| Cobalt   | Lanzhou Jinchuan Advanced Materials Technology Co., Ltd.**     | CHINA                    |
| Cobalt   | Zhejiang Huayou Cobalt Company Limited**                       | CHINA                    |
| Cobalt   | SungEel HiTech Co.,Ltd.**                                      | KOREA, REPUBLIC OF       |

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|--------|--|--------------------|
| Cobalt | Jiangsu Xiongfeng Technology Co., Ltd.**                 | CHINA              |
| Cobalt | Hunan Zoomwe New Energy Science & Technology Co., Ltd.** | CHINA              |
| Cobalt | Quzhou Huayou Cobalt New Material Co., Ltd.**            | CHINA              |
| Cobalt | Ganzhou Tengyuan Cobalt New Material Co., Ltd.**         | CHINA              |
| Cobalt | Gem (Jiangsu) Cobalt Industry Co., Ltd.**                | CHINA              |
| Cobalt | Murrin Murrin Nickel Cobalt Plant**                      | AUSTRALIA          |
| Cobalt | Zhuhai Kelixin Metal Materials Co., Ltd.                 | CHINA              |
| Cobalt | Guangxi Yinyi Advanced Material Co., Ltd.                | CHINA              |
| Cobalt | Sumitomo Metal Mining                                    | JAPAN              |
| Cobalt | Gangzhou Yi Hao Umicore Industry Co.                     | CHINA              |
| Cobalt | Jiangxi Jiangwu Cobalt industrial Co., Ltd.              | CHINA              |
| Cobalt | JSC Kolskaya Mining and Metallurgical Company (Kola MMC) | RUSSIAN FEDERATION |
| Cobalt | NORILSK NICKEL HARJAVALTA OY                             | FINLAND            |
| Cobalt | Dynatec Madagascar Company                               | MADAGASCAR         |
| Cobalt | Glencore Nikkelverk Refinery                             | NORWAY             |
| Cobalt | Hunan Brunp Recycling Technology Co., Ltd.               | CHINA              |
| Cobalt | Fort Saskatchewan Metals Facility                        | CANADA             |

† Smelter and refiner facility names and locations as reported by the RMI as of March 3, 2020.

\* Denotes smelters and refiners which are conformant to a responsible mineral sourcing validation program as of March 3, 2020.

\*\* Denotes smelters and refiners which are participating in a responsible mineral sourcing validation program as of March 3, 2020.

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