INDEPENDENT REASONABLE ASSURANCE REPORT ON THE LBMA REFINER'S
COMPLIANCE REPORT OF UMICORE BRASIL LTDA FOR THE YEAR ENDED 31
DECEMBER 2018

This report has been prepared in accordance with the terms of our engagement contract dated 10 August 2018,
whereby we have been engaged to issue an independent reasonable assurance report in connection with the
LBMA Refiner's Compliance Report (the "Compliance Report") for the year ended 31 December 2018.

Responsibility of Board of Directors

The Board of Directors of Umicore Brasil Ltda ("the Company") is responsible for the preparation of the Refiner's
Compliance Report ("the Subject Matter Information") and the declaration that its reporting meets the
requirements of the version 7 (01/09/2017) of the LBMA Responsible Gold Guidance ("the Criteria").

This responsibility includes the selection and application of appropriate methods for the preparation of the Subject
Matter Information, for ensuring the reliability of the underlying information and for the use of assumptions and
estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the
responsibility of the Board of Directors includes the design, implementation and maintenance of systems and
processes relevant for the preparation of the Subject Matter Information that is free from material misstatement,
whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an independent conclusion about the Subject Matter Information based on the
procedures we have performed and the evidence we have obtained. We conducted our work in accordance with
the International Standard on Assurance Engagements (ISAE) 3000 (Revised) “Assurance Engagements other
than Audits or Reviews of Historical Financial Information”. This standard requires that we comply with ethical
requirements and that we plan and perform the engagement to obtain reasonable assurance as to whether the
Refiner's Compliance Report for the year ended 31 December 2018, in all material respects, describes fairly the
activities undertaken during the year to demonstrate compliance, and management’s overall conclusion contained
therein, and is in accordance with the Criteria.

The objective of a reasonable assurance engagement is to perform the procedures we consider necessary to
provide us with sufficient appropriate evidence to support the expression of a conclusion in the positive form on
the Subject Matter Information.

The procedures performed in a reasonable assurance engagement vary in nature and timing from, and are more
in extent than for, a limited assurance engagement. Consequently, the level of assurance obtained in a
reasonable assurance engagement is substantially higher than the assurance that would have been obtained if a
limited assurance engagement had been performed.

The selection of such procedures depends on our professional judgment, including the assessment of the risks of
management's assertion being materially misstated. The scope of our work comprised the following procedures:

- assessing and testing the design and functioning of the systems and processes used for data-gathering,
collation, consolidation and validation, including the methods used for editing the Subject Matter
Information as of and for the year ended 31 December 2018 presented in a report;
- conducting interviews with responsible officers;
- inspecting internal and external documents.

We have evaluated the Subject Matter Information against the Criteria. The accuracy and completeness of the
Subject Matter Information are subject to inherent limitations given their nature and the methods for determining,
calculating or estimating such information. Our Reasonable Assurance Report should therefore be read in connection with the Criteria.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. Our audit firm applies International Standard on Quality Control (ISQC) n° 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Conclusion

Based on the procedures performed, as described in this Independent Reasonable Assurance Report, and the evidence obtained, the Refiner's Compliance Report of Umicore Brasil Ltda for the year ended 31 December 2018, in all material respects, describes fairly the activities undertaken during the year to demonstrate compliance, and management's overall conclusion contained therein, and is in accordance with the Criteria.

Restriction on Use and Distribution of our Report

Our assurance report has been made in accordance with the terms of our engagement contract. Our report is intended solely for the use of the members of board of directors of the Company, in connection with the Refiner's Compliance Report as of and for the year ended 31 December 2018 and should not be used for any other purpose. We do not accept, or assume responsibility to anyone else for this report or for the conclusions that we have reached. In this respect, we consent to our report being shown to the LBMA, on the understanding that we accept no responsibility or liability for damages to the LBMA or to any other third party to whom our report may be provided or into whose hands it may come.

Sint-Stevens-Woluwe, 29 March 2019

PwC Bedrijfsrevisoren cvba
Represented by

Marc Daelman*
Registered auditor

*Marc Daelman BVBA
Board Member, represented by its fixed representative, Marc Daelman
Table 1: Refiner’s details

<table>
<thead>
<tr>
<th>Refiner’s name</th>
<th>Umicore Brasil Ltda. – Business unit Precious Metals Refining (hereinafter UPMR Brazil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Guarulhos, Brazil</td>
</tr>
<tr>
<td>Reporting Year-end</td>
<td>2018</td>
</tr>
<tr>
<td>Date of Report</td>
<td>15/02/2019</td>
</tr>
<tr>
<td>Senior Management responsible for this Report</td>
<td>General Manager UPMR Brazil</td>
</tr>
</tbody>
</table>

Table 2: Summary of activities undertaken to demonstrate compliance

Although UPMR doesn’t use all the templates of the toolkit, the internal procedures described in the internal supply chain due diligence guidance completely comply with the requirements of the LBMA Responsible Gold Guidance documents.

Step 1: Establish strong company management systems

Compliance Statement with Requirement

UPMR Brazil has fully complied with step 1 “Establish strong management systems”.

1. Has the Refiner adopted a company policy regarding due diligence for supply chains of gold?

Comments and Demonstration of Compliance

A specific Group Policy “Responsible Global Supply Chain of Minerals from Conflict-Affected and High Risk Areas” has been effective within the Umicore Group as from 4 February 2013 and it is available on Umicore Brasil website: https://www.umicore.com.br/pt/sobre/nossos-sites/guarulhos/

Based on the principals of this policy, UPMR Brazil adopts on an operational level a more detailed due diligence guideline covering following topics:

- Scope
- Organization and responsibilities
- Identification and assessment of risks, including all risks described in Annex II of the OECD Guidance
- Criteria for high-risk gold supply chain
- Supply chain due diligence, inclusive of the business partner screening process
- Monitoring of transactions
- Maintaining records
- Employee training

Other related documents are:

- Umicore Way
- Code of Conduct

2. Has the Refiner set up an internal management structure to support supply chain due diligence?

Comments and Demonstration of Compliance

Within UPMR Brazil an internal management system has been set up. This system defines the governance, roles and responsibilities, internal compliance reviews, communication and the
senior management involvement in order to ensure the effectiveness and performance of the supply chain due diligence procedures, compliance and due diligence.

The compliance officer, having an independent function within the Umicore Brasil but outside the Precious Metals Refining business unit, has been assigned to manage the complete process. She is in a line of reporting to the senior management within the Umicore Brasil.

3. Has the Refiner established a strong internal system of due diligence, controls and transparency over gold supply chain, including traceability and identification of other supply chain actors?

Comments and Demonstration of Compliance
The Umicore Group and UPMR Brazil are committed to promoting honest and ethical business conduct by all of its employees, directors, officers and agents and compliance with the laws that govern the conduct of business worldwide. The Umicore Group and UPMR Brazil believe that a commitment to honesty, ethical conduct and integrity is an essential asset that builds trust with company clients, business partners, shareholders and the communities in which they operate.

UPMR developed an internal risk based approach ensuring supply chain traceability and maintaining of records.

Training is very important for UPMR Brazil and a training program on LBMA Gold Guidance and on Internal Procedures has been installed for all employees concerned. Policies and procedures were communicated from Umicore Group and from UPMR Brussels via Intranet. Continuous training and development on the one hand and brief, clear in precise communication on the other hand, promote employee participation.

The compliance officer reviews the gold supply chain due diligence and reports to the Administrative Director of Umicore Brasil

The Corporate Security Officer is conducting as from 2013, regular internal compliance reviews with respect to the application of the internal procedures. Results are communicated to the senior manager of PMR, compliance officer, supervisor of quality, EHS & commercial projects and other managers of UPMR Brazil.

Within UPMR Brazil an escalation procedure has been installed. Exceeding certain risk levels with respect to business partner screening and/or material screening, implies the intervention of the compliance officer and senior manager and the communication to the Chief Security Officer, in Brussels.

UPMR uses just official banking channels to make and receive payments for gold transactions. Where and when it is applicable and/or necessary UPMR cooperates with all government authorities related any issue linked with gold transactions or any other subject.

4. Has the Refiner strengthened company engagement with gold supplying counterparties, and where possible, assist gold supplying counterparties in building due diligence capabilities?

Comments and Demonstration of Compliance
As mentioned in the Sustainable Procurement Charter, the Umicore Group expects that suppliers comply with all applicable environmental laws and regulations in all territories where suppliers operate and that they possess all the necessary environmental permits and registrations.

The Umicore Group expects that suppliers respect the International Labor Organization's Declaration on Fundamental Principles and Rights at Work and the international law in Human Rights. The Umicore Group expects that suppliers are not complicit in any way in Human Right abuses.

The UPMR Brazil requires that all Gold Supply Chain counterparties commit themselves formally by signing a letter in compliance with LBMA Gold Guidance. We have a reasonable comfort that all counterparties of the Gold Supply Chain which signed the letter promote a responsible sourcing and practices throughout their supply chain. If we are requested by one of our suppliers we can assist them to improve their responsible supply chain practices. On the other hand, if one of our suppliers denied to sign the letter in compliance with LBMA Gold Guidance, Umicore will discontinue the commercial relationship and will be not receive material to be refined.

Furthermore, when applicable, a site visit may be performed in respect of compliance with LBMA Responsible Gold Guidance.

UPMR Brazil concludes as much as possible long term contracts with reliable suppliers.

5. Has the Refiner established a confidential grievance mechanism?

Comments and Demonstration of Compliance
Umicore uses a multi-channel system to collect information on suspicious activities, concerns over the gold supply chain and/or newly identified risks. Any complaint or suspicion will be handled on a confidential basis, thus ensuring protection of the internal and/or external persons reporting.

Step 2: Identify and assess risks in the supply chain
Compliance Statement with Requirement
UPMR Brazil has fully complied with step 2 "Identify and assess risk in the supply chain”.

1. Does the refiner have a process to identify risks in the supply chain?

Comments and Demonstration of Compliance
As mentioned in step 1.3, UPMR Brazil developed an internal risk based approach to detect systematically risks throughout the gold supply chain, as well for mined gold as for recycled gold.

2. Does the refiner assess risks in light of the standards of their due diligence system?

Comments and Demonstration of Compliance
UPMR Brazil assesses risks in light of the standards of its due diligence system. Key documents are the internal due diligence guideline and the Group Policy "Responsible Global Supply Chain of Minerals from Conflict-Affected and High Risk Areas”. These documents contain all measures required by the LBMA Responsible Gold Guidance.
UPMR Brazil performs enhanced due diligence for high risk categories, as well for business partner screening as for material screening. In addition, UPMR Brazil conducts appropriate scrutiny and monitoring of individual transactions.

UPMR Brazil verifies that the supply chain documents are consistent with each other and with its knowledge of the supply chain.

3. Does the refiner report risk assessment to the designated manager

Comments and Demonstration of Compliance
As explained in step 1.5, escalation procedure has been installed within UPMR Brazil, whereby the compliance officer and senior manager must be involved when certain risk levels are exceeded.

As from 2013, regular internal compliance reviews are being conducted by the Corporate Security Officer. Audit results are reported to the senior manager of PMR and compliance officer.

Step 3: Design and implement a management system to respond to identified risks

Compliance Statement with Requirement
UPMR Brazil has fully complied with step 3 “Design and implement a management system to respond to identified risks”.

1. Are the findings reported to designate Senior Management?

Comments and Demonstration of Compliance
Where appropriate, in UPMR Brazil, information gathered and actual and potential risks identified in the supply chain risk assessment will be communicated to Senior Management.

2. Has the refiner devised a strategy for risk management of an identified risk by either (i) mitigation of the risk while continuing trade; (ii) mitigation of the risk while suspending trade; (iii) disengagement of the risk?

Comments and Demonstration of Compliance
As explained in step 1.5, escalation procedure have been installed within UPMR Brazil which involves the compliance officer and senior manager in case of higher risk. Transactions will be put on hold. The decision of the compliance officer and senior manager could lead to mitigation of the risk or could lead to disengagement.

3. Where a management strategy of risk mitigation is undertaken, it should include steps to be taken and achieved, monitoring or performance, periodic reassessment of risk and regular reporting to designated senior management.

Comments and Demonstration of Compliance
A systematic monitoring of transactions is embedded in UPMR Brazil’s supply chain processes and practices. As from 2013, regular internal compliance reviews are being conducted by the Corporate Security Officer. Audit results are reported to the senior manager of PMR and compliance officer.
Based on our current matrix of risk based approach, where and when we identify risks which lead our assessment to the level 3, we stop immediately the business or potential business evaluation.
4. Has the Refiner undertaken additional fact and risk assessments for risk requiring mitigation, or after a change of circumstances?

**Comments and Demonstration of Compliance**
As the supply chain due diligence is a dynamic process UPMR is constantly monitoring changes in the commercial process, in the counterparties information and/or in profile of received material in order to update partially or completely the due diligence process.

**Step 4: Arrange for an independent third-party audit of supply chain due diligence**
**Compliance Statement with Requirement**
UPMR Brazil has fully complied with step 4 “Arrange for an independent third-party audit of supply chain due diligence”.

**Comments and Demonstration of Compliance**
UPMR Brazil engaged the services of the assurance provider PwC and their Independent Limited Assurance Report is available on Umicore Brasil website: https://www.umicore.com.br/pt/sobre/nossos-sites/guarulhos/

**Step 5: Report on supply chain due diligence**
**Compliance Statement with Requirement**
UPMR Brazil has fully complied with step 5 “Report on supply chain due diligence”

**Comments**
Further information and specific details of how UPMR Brazil’s systems, procedures, processes and controls have been implemented to align to the specific requirements in the LBMA Responsible Gold Guidance have been set out in Refiner’s Compliance Report, which is public available on Umicore Brasil website: https://www.umicore.com.br/pt/sobre/nossos-sites/guarulhos/
<table>
<thead>
<tr>
<th>Table 3</th>
<th>Management conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Is the refiner in compliance with the requirements of the LBMA Responsible Gold Guidance for the reporting period</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td>Umicore Precious Metals Refining Brazil (UPMR Brazil) implemented effective management systems, processes and practices to confirm to the requirements of the LBMA Responsible Gold Guidance, as explained above in Table 2, for the reporting year ended 31 December 2018.</td>
<td></td>
</tr>
<tr>
<td>Regarding management systems, processes and practices in the domain of “Responsible Global Supply Chain of Minerals from Conflict-Affected and High Risk Areas”, Umicore Precious Metals Refining Brazil (UPMR Brazil) received feedback after the independent audit, conducted by PricewaterhouseCoopers on February 2019.</td>
<td></td>
</tr>
<tr>
<td>Umicore Precious Metals Refining Brazil (UPMR Brazil) is committed to continuous improvement, and any corrective actions identified will be monitored internally on a regular basis. In case corrective actions plans would be necessary, these will be communicated separately to the LBMA Physical Committee, in its role as administrator of the LBMA Responsible Gold Guidance.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Other report comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comments</strong></td>
<td></td>
</tr>
<tr>
<td>UPMR Brazil has no further report comments.</td>
<td></td>
</tr>
</tbody>
</table>