



**RCS GLOBAL**

Chain of Custody Tracking  
Baseline Evaluation  
Rwanda

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### i. Acronyms

|          |  |
|----------|--|
| AFP      | Analytic Fingerprint   |
| ASM      | Artisanal and Small-Scale Mining   |
| BGR      | Bundesanstalt für Geowissenschaften und Rohstoffe  |
| CoC      | Chain of Custody   |
| DD       | Due Diligence  |
| EITI     | Extractive Industries Transparency Initiative  |
| GMD      | Geology and Mines Department   |
| ICGLR    | International Conference of the Great Lakes Region   |
| ITRI     | International Tin Research Institute   |
| ITSCI    | ITRI Tin Supply Chain Initiative   |
| JV       | Joint-Venture  |
| MINIRENA | Ministry of Natural Resources  |
| MoU      | Memorandum of Understanding  |
| MSA      | Mineral Supply Africa  |
| OECD     | Organisation for Economic Cooperation and Development  |
| OECD DDG | OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas |
| RBS      | Rwanda Bureau of Standards   |
| RCM      | Regional Certification Mechanism   |
| RDB      | Rwanda Development Board   |
| RF ID    | Radio Frequency Identity card  |
| RNRA     | Rwanda Natural Resources Authority   |
| RRA      | Rwanda Revenue Authority   |
| SOP      | Standard Operating Procedure   |
| ToR      | Terms of Reference   |
| WMP      | Wolfram Mining and Processing  |

### ii. Disclaimer

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## Terms of reference



PARTNERSHIP AFRICA CANADA  
PARTENARIAT AFRIQUE CANADA

### Terms of Reference

#### Chain of Custody Tracking Baseline Evaluation Rwanda

21 January 2013

Partnership Africa Canada, Ottawa Canada  
International Conference on the Great Lakes Region (ICGLR)  
Rwanda Natural Resources Authority, Geology and Mines Department (GMD)

#### 1 Introduction and Objectives of Evaluation

Each Chain of Custody (CoC) tracking system operating in a given ICGLR member state is required to undergo an initial independent evaluation against the ICGLR CoC tracking standards as defined in the ICGLR Certification Manual and its Appendix, and, in Rwanda, referenced in MINIRENA regulation no. 002/2012 of 28/03/2012. Additional follow-up evaluation is required should any substantial modifications be made with regards to the operational procedures of a given CoC tracking system. ICGLR export certificates for Designated Mineral shipments may only be issued once the associated CoC tracking system(s) has been evaluated.

The Independent Mineral Chain Auditor is required to perform such evaluations. In his/her absence, the ICGLR Certification Manual provides the option for ICGLR to facilitate CoC tracking system evaluation by an independent expert (consultant). The consultant's temporary accreditation as a qualified person to evaluate a given CoC tracking system shall be coordinated by the ICGLR Secretariat (§4.4, ICGLR certification manual).

The present Terms of Reference outline the framework for performing an initial evaluation of the CoC tracking system(s) associated with mineral shipments originating from

- The Rutongo concession in Rwanda and mined/exported by Rutongo Mines Ltd. (via Phoenix Metal);
- The Gifurwe concession in Rwanda and mined/exported by Wolfram Mining and Processing (WMP);
- The Nyakabingo concession in Rwanda and mined/exported by Eurotrade International (via Phoenix Metal and Mineral Supply Africa).

The evaluation is of preliminary or baseline character and shall, at a later stage, serve as a base for a broader-scale evaluation of the CoC tracking system(s) operational in Rwanda.

## 2 Scope and Methodology of CoC Evaluation

An evaluation of the CoC tracking system(s) operating at the above concessions and along the associated mineral chains shall be performed by an independent consultant against the ICGLR CoC standards as defined in section 4 of the ICGLR certification manual. The evaluation shall focus on the nine general requirements of the CoC tracking system as per §4.6-4.14 of the ICGLR certification manual (listed below).

The consultant shall be authorized by the ICGLR Executive Secretary's office (§4.4; see above) to perform the present evaluation.

As the implementation of the CoC tracking system and the regional certification mechanism is still in a transitional phase, it is not mandatory, to evaluate additional, individual mineral chain stakeholder's additional responsibilities as defined in the Annex of the ICGLR certification manual. Incomplete compliance with these additional responsibilities may be documented, but shall not impact on the overall compliance rating of the CoC tracking system with regards to the ICGLR CoC general requirements.

The CoC tracking system(s) evaluation shall take place at all locations where minerals are aggregated, starting from the mine(s) of origin and ending once minerals (shipments) are sealed for export from Rwanda (typically in a container). The evaluation shall include physical site inspections and review/cross-referencing of the associated CoC tracking documentation and procedures, combined with interviews of the relevant stakeholders.

In case more than one CoC tracking systems are in operation, these systems shall be evaluated individually where this makes sense. Note, however, that referring to "the system" in the ICGLR general requirements (see below) may comprise integrated formal requirements/procedures of a given tracking scheme and, additionally, may involve formal company-internal requirements/procedures applied in general or for a specific mineral supply chain. It may further include related requirements/procedures of the national certification framework. Hence, "the system" may represent an integration of more than one scheme fulfilling supplementary functions in mineral supply chain management (including CoC tracking).

The consultant shall also elaborate improvement suggestions in case non-compliance of the CoC tracking system(s) with one or more ICGLR CoC standards (general requirements) is found during the evaluation.

## 3 Tasks of the Consultant and Reports to be submitted

### 3.1 Schedule

An appropriate time schedule for evaluation planning, field work, and reporting shall be elaborated by the consultant, in coordination with relevant stakeholders (Partnership Africa Canada, GMD, ICGLR, BGR, iTSCi Rwanda or any other traceability provider deployed by the mine ; with on-site research at Rutongo Mines Ltd., Wolfram Mining and Processing, Eurotrade International, Mineral Supply Africa, Phoenix Metal). Based on the above work program, the consultant shall perform the evaluation and prepare the following evaluation draft and final reports in English language:

(1) The consultant shall submit an initial draft evaluation report to the client (ICGLR to the attention of the Executive Secretary and Partnership Africa Canada) one week after completion of field work at the latest. The client shall review the draft report and return it to the consultant with any potential comments within one week at the latest.

(2) The consultant shall submit a final evaluation report to the client (and copied to the evaluated parties) one week after receiving the commented draft evaluation report. The final (revised) evaluation report shall reflect any submitted comments.

The review process outlined above shall serve to verify the accuracy and completeness of the evaluation report. It shall not impact on the impartiality and independence of the consultant and his/her findings.

### 3.2 Structure of the Evaluation Report

The evaluation report shall briefly (3 pages max.) outline the context and purpose of the evaluation. The report shall then describe in detail the current *modus operandi* (procedures, responsibilities, stakeholders, governance) of any CoC tracking system(s) in place along the supply chain from the mines noted above down to the point of mineral export with regards to the general requirements of the ICGLR CoC standards.

The report shall then discuss in detail the compliance of the operating CoC tracking system(s) against individual general requirements of the ICGLR CoC standards.

The report shall then synthesize any challenges and problems observed in the evaluation process and formulate improvement suggestions. This shall include definite suggestions to bring the CoC tracking system(s) into ICGLR standard compliance (in case of any observed non-compliance), and, otherwise, may include optional suggestions to improve certain operational aspects of the CoC tracking system(s), where considered as useful by the consultant.

The report shall include an Executive Summary (2 pages max.) providing a brief introduction on the context of the evaluation and then focusing on the evaluation findings with regards to CoC tracking system(s) compliance against individual ICGLR CoC standard general requirements.

### 4 Support by the Client

The client (ICGLR) and its partners will provide technical support to the consultant in Rwanda . In particular, the client and its partners will:

- Provide relevant background documents;
- Assist with travel arrangements to Rwanda (e.g., visa support letter);
- Liaise/provide coordination with relevant stakeholders in Rwanda (private sector and government);
- Provide guidance to the consultant (if necessary) and review the evaluation report.

### 5 Human Resources Required

It is anticipated that the above evaluation will require a maximum of one day of preparation (review of relevant background documents), eight days of field work in Rwanda (travel to/from Rwanda not included in the eight days), two days of initial report compilation, and one day for finalizing the evaluation report (based on the review by the client). A total of twelve working days is anticipated for the whole process.

## Executive summary

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Rwanda has endorsed the International Conference of the Great Lakes Region (ICGLR) Regional Certification Mechanism (RCM) for designated minerals (cassiterite, wolframite and tantalum). The Rwandan Geology and Mines Department (GMD) implement the RCM in Rwanda. The GMD in September 2010 signed a Memorandum of Understanding (MoU) with ITRI for a tagging system ensuring the traceability of minerals produced in the country's mines and processing sites. The GMD thus has formally adopted the ITRI Tin Supply Chain Initiative (ITSCI) traceability system.

In Rwanda, 96 GMD officers, who implement the ITSCI traceability system in the field, are hired and paid by the GMD. The GMD recently approved additional recruitments, to bring the number of ITSCI officers to 200.

This Baseline Evaluation assesses the tracking mechanisms deployed on three Rwandese supply chains:

- Chain of Custody 1: Rutongo Mines to Phoenix Metal Export (who has partially deployed the Met Trak tracking system, as well as the ITSCI system);
- Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export;
- Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession.

The ICGLR RCM defines 9 criteria which adequate chain of custody tracking systems must comply with.

With regards to these requirements, the three supply chains assessed revealed that the systems (both ITSCI and Met Trak) are adequately conceived for the parts of the chain of custody of mineral they are deployed on. However, these systems do not cover the entire chain, and leave a gap when it comes to tracking minerals from the point of extraction to the point where they are first weighed, bagged and tagged (other measures are however in place on this segment of the supply chain). The ITSCI traceability system relies on human manpower and accuracy, and its efficiency is therefore related to the human resources deployed throughout the supply chain. The Met Trak system is automated, relying on radio frequency emitters and sensors. It is therefore less subject to human error. However, it has so far only been deployed on a test site (in Rutongo Mines), and data and experience attesting to its efficiency is therefore much less available than in the case of the widely deployed ITSCI scheme.

More specifically on each "ICGLR General Requirements of Chain of Custody Tracking Systems":

**Standard 4.6:** *Mineral consignments only originate from certified mine sites.*

**Evaluation:** the ITSCI tracking systems relies on the physical presence and observations of the GMD officers (who are GMD personnel) to monitor the supply chain, and record traceability data. On some sites, particularly large concessions such as Rutongo Mines, they cannot physically supervise all locations where bagging and tagging of minerals occur. The number of locations where "bag and tag" operations occur simultaneously exceed the number of officers deployed on site. In Rutongo for instance, six officers must cover 11 weighing and bagging stations and the upgrading plant. Some bag and tag operations therefore take place under no supervision from GMD officers, to ascertain all minerals consigned effectively originate from the mine.

Tracking systems employed in the assessed supply chains do not systematically ensure mineral consignments only originate from ICGLR certified mine sites. Although the ITSCI tracking system includes mine assessments, these are carried out against standards defined by ITSCI and do not necessarily address all aspects of the ICGLR mine inspections. Furthermore, there are currently no policies or procedures in place at mineral buyers to ensure minerals are exclusively sourced from ICGLR certified mines.

**Recommendations:** Although the GMD has planned to increase the number of ITSCI officers from 96 to 200, this does still not allow for comprehensive coverage of all the required locations in Rwanda's 500 or so active mines. Additional manpower is needed. Involving civil society organisations in partnering with the GMD, to form teams of ITSCI officers supervising the implementation of the traceability system, may be an option.



Mineral buyers should establish procedures to ensure mineral consignments only originate from ICGLR certified mine sites. Where ICGLR mine inspections are not yet carried out, existing tracking systems should work towards aligning existing mine assessments with the ICGLR requirements for mine inspections. Furthermore, it is recommended for the ICGLR to publish a list of existing mine assessments that are recognized as fully equivalent to the ICGLR mine certifications in areas where no mine inspections are yet carried out.

**Standard 4.7:** *Mineral consignments are traceable through their documentation along the chain of custody.*

**Evaluation:** The operational policy between ITSCI and GMD on procedures for the safekeeping and storing of Mine and Négociant tags and logbooks, which certify the origin of the minerals down the chain of custody could not be reviewed during the assessment. Although it has been agreed by ITSCI and GMD that storage of tags shall be jointly managed between GMD and ITSCI staff, this practice does not appear to be implemented in all supply chains reviewed as part of this assessment. Under the agreement, tags and logbooks should be stored in boxes secured by two padlocks, keys for which are kept by the GMD Manager and the buying company's owner. Additionally, the transmission, scanning and processing of the logbooks recording all traceability information from the mine of origin to the ITSCI database can take several weeks. In some cases, by the time an incident is detected through analysis of the logbook, the related minerals have already moved down the supply chain.

**Recommendations:** Standard operating procedures for the safekeeping of ITSCI tags and logbooks and their integrity should be developed and enforced by "ITSCI officers". The officers should record tracking information on electronic devices rather than paper logbooks, thus enhancing the reliability of data and the timeliness of transmission of records. This would allow for a prompter reaction in case of an incident. It is reported that the use of PDA is currently in a 5 month trial phase by ITSCI in Rwanda.

**Standard 4.8:** *Consignments from certified sites are segregated from consignments from non-certified sites.*

**Evaluation:** ITSCI Mine tags in Rwanda display a label "RW Mine", as well as a 7-digit incremental number which does not include the mine of origin's code. This prevents processing centres from detecting inconsistencies between the mine of origin declared (as reported in the ITSCI logbook) and the actual tag number.

Tracking systems and mineral buyers and processors in the assessed mineral supply chains do not ensure mineral consignments from ICGLR certified mines are maintained segregated from non-ICGLR certified mines.

**Recommendations:** Although the information is verifiable at the GMD and ITSCI office, ITSCI Mine tags should mention the mine of origin.

Where mineral consignments are sourced from ICGLR certified and non-ICGLR certified mine sites, the mineral buyers and processors should establish adequate systems to ensure these consignments are maintained segregated throughout the transportation, handling, storage and processing. It is recommended for the ICGLR to publish a list of existing mine assessments that are recognized as fully equivalent to the ICGLR mine certifications in areas where no mine inspections are yet carried out. Consignments from mines inspected under a mechanism recognised as equivalent to being ICGLR certified should be maintained segregated from mineral consignments originating in other mine sites.

**Standard 4.9:** *The mineral supply chain is conflict-free.*

**Evaluation:** No presence or armed groups was observed at any location pertaining to the three chains of custody assessed. All companies have formally contracted security guards through companies accredited by the Rwandese authorities.

**Recommendations:** Companies could train the security guards specifically on the standards, processes and risks related to transparent and responsible chains of custody.

**Standard 4.10:** *Disaggregated traceability data is communicated to the ICGLR Secretariat.*

**Evaluation:** A copy of each ITSCI logbook is systematically communicated to the GMD, who in turn shares it with the ICGLR authorities. Additional information is communicated by the operators of all three supply chains, but these are not always disaggregated, particularly in the case of large concessions such as Rutongo.

**Recommendations:** The GMD could develop a data-reporting template for operators to communicate the required data in the desired, disaggregated format. Reportedly, such a template is already in place, however this could not be verified at the time of the assessment.

**Standard 4.11:** *The system is transparent in its documentation and decision making structures.*

**Evaluation:** Operators using the ITSCI tracking system have formal agreements with ITRI regarding the governance of the scheme, and the destination and use of data collected by the system. The Met Trak system, still in pilot implementation phase, does not yet have a publicised governance structure.

**Recommendations:** Developers of the Met Trak system should develop a data protection policy, engage with companies using the system to ensure data protection, and communicate the list of the persons authorised to access data through the subscriber authentication procedure to its and to the IGLCR.

**Standard 4.12 and 4.13:** The system is open and submits to independent audits.

**Evaluation:** All operators evaluated for the three chains of custody assessed in this baseline evaluation have displayed full availability and granted access to all premises, personnel and data required by the auditor. The frequency of audits, baseline studies, research interviews and evaluations of these supply chains has however generated fatigue for some operators who are regularly put to contribution.

**Recommendations:** The development of standard audit templates, integrating the ICGLR General Requirements of Chain of Custody Tracking Systems, could streamline audit efforts.

**Standard 4.14:** The system has a governance and risk management system protecting it from misuse and fraud.




**Evaluation:** The ITSCI system has a system to record and report incidents observed.

**Recommendations:** The Met Trak system, still in a pilot phase of implementation, has yet to implement a risk management system.

---

## Summary Compliance table

The following table provides a “flag-system” summing up compliance of the relevant aspects of each of the three supply chains assessed, against the ICGLR RCM Standards.

|                      |   |  |
|----------------------|---|--|
| Compliant:           |  | The supply chain system and its implementation are adequate for the standard’s purpose.          |
| Partially compliant: |  | The supply chain system should be adjusted, or reinforced for full compliance with the standard. |
| Not compliant:       |  | The supply chain system is not compliant with the standard.                                      |

| ICGLR Standard      | Chain of Custody 1:<br>Rutongo Mines to<br>Phoenix Metal Export* | Chain of Custody 2:<br>Eurotrade Nyakabingo<br>concession to Mineral<br>Supplies Africa Export | Chain of Custody 3:<br>Wolfram Mineral<br>Processing at Gifurwe<br>concession |
|---------------------|--|--|---|
| ICGLR Standard 4.6  | Partially compliant  | Partially compliant  | Partially compliant   |
| ICGLR Standard 4.7  | Partially compliant  | Partially compliant  | Partially compliant   |
| ICGLR Standard 4.8  | Partially compliant  | Partially compliant  | Partially compliant   |
| ICGLR Standard 4.9  | Partially compliant  | Partially compliant  | Partially compliant   |
| ICGLR Standard 4.10 | Partially compliant  | Partially compliant  | Partially compliant   |
| ICGLR Standard 4.11 | Compliant  | Compliant  | Compliant   |
| ICGLR Standard 4.12 | Compliant  | Compliant  | Compliant   |
| ICGLR Standard 4.13 | Compliant  | Compliant  | Compliant   |
| ICGLR Standard 4.14 | Partially compliant  | Partially compliant  | Partially compliant   |

\* The compliance assessment for Rutongo Mines to Phoenix Metals summarizes the evaluation for both the ITSCI and MetTrak traceability system, although they were assigned the same score for different reasons, specific to each system.

The summary table of compliance indicates that:

- None of the three supply chains present non-compliances with regards to the ICGLR standards;
- All three supply chain management and traceability systems are consistent in their design, implementation and practice;
- “Partial non-compliances” mostly concern the implementation of the traceability systems examined, rather than their design, allowing for their adjustment and subsequent full compliance.

### ICGLR Standard 4.6 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*Mineral consignments only originate from mine sites defined as Certified according to ICGLR standards. (Explanatory note: “Certified”, for the purpose of this evaluation, shall include both green- and yellow-flagged mine sites in Rwanda. It explicitly excludes any red-flagged mine sites).*

### ICGLR Standard 4.7 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*Mineral consignments from Certified mine sites are fully traceable through their accompanying documentation from the mine of origin up to the point of export.*

**ICGLR Standard 4.8 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*Mineral consignments from Certified mine sites are fully physically separated from mineral consignments from other sites, from the mine site to the point of export. Mineral consignments from different Certified mine site may be physically mixed provided the relative proportions of minerals from different certified mines of origin remain traceable.*

**ICGLR Standard 4.9 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The supply chain of mineral consignments is conflict free. For the purpose of the ICGLR Tracking and Certification Scheme, 'conflict free' means that none of the actors in the mineral chain contribute at any time, through the extraction, transport, trade, handling or export of minerals, to any direct or indirect support to non-state armed groups or public or private security forces engaged in illegal activity and/or serious human rights abuse. Direct or indirect support" to non-state armed groups or public or private security forces through the extraction, transport, trade, handling or export of minerals includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces or their affiliates who:*

*4.9.1 illegally control mine sites or otherwise control transportation routes, points where minerals are traded and upstream actors in the supply chain; and/or 4.9.2 illegally tax or extort money or minerals at points of access to mine sites, along transportation routes or at points where minerals are traded; and/or 4.9.3 illegally tax or extort money or mineral shares from mine site owners, mine site operators, intermediaries, traders, export companies, or any other actors in the upstream chain of custody.*

**ICGLR Standard 4.10 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*Tracking data from the mineral chain and the Chain of Custody tracking system are transmitted to the ICGLR Secretariat. The data from the Chain of Custody system shall be transmitted to the ICGLR Secretariat in full, in its unprocessed state. The data shall not be redacted, aggregated, grouped, or otherwise processed in any way that might serve to hide, disguise, obscure or otherwise impede the ability of the Secretariat to have full access to every particular of every parcel, lot or shipment of Designated Minerals.*

**ICGLR Standard 4.11 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system is transparent in its documentation and decision making structures. The existence and status of all participants in the ICGLR Mineral Tracking and Certification System (including but not limited to mine operators, traders, processors, comptoirs and smelters) shall be publicly disclosed, along with any ICGLR administrative reports or audits pertaining to that status. The decisions of the Secretariat and Committees must be publicly disclosed, along with the underlying documentation supporting those decisions.*

**ICGLR Standard 4.12 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system is open to inspection to independent audits by Third Party Auditors.*

**ICGLR Standard 4.13 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system has to submit to independent audits by the ICGLR Independent Mineral Chain Auditor.*

**ICGLR Standard 4.14 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system has a governance and risk management system installed.*

## Introduction

The scope of this review covers the following three supply chains of minerals, all of which have implemented traceability mechanisms and have successfully attained the status of “Green Flag” sites granted by the International Conference of the Great Lakes region (ICGLR) Regional Certification Mechanism (RCM). The ICGLR Certification Manual defines the Mine Site Status of “Green Flag” as “A Certified Mine Site is one that is registered and described in a Member State’s National Mine Site Database that has been inspected at least once within the preceding 12 month period, and has been found to be in compliance with all the requirements and conditions of Section 3 and this appendix”<sup>1</sup>. This means the sites are aligned with the OECD Due Diligence Guidelines on conflict minerals, and with a wider set of ICGLR requirements on environmental issues, working conditions and human rights.

These supply chains are:

- The Rutongo concession, Rwanda’s largest cassiterite producer, exploited by Rutongo Mines Ltd, a joint-venture between the government of Rwanda and Tinco, a private company. The production of Rutongo Mines is exported by the Rwandan company Phoenix Metal S.a.r.l.
- The Nyakabingo wolframite mine, exploited by Eurotrade S.a.r.l., a Rwandese subsidiary of Tinco. Nyakabingo’s production is exported through Mineral Supply Africa (MSA).
- The Gifurwe concession, exploited by Wolfram Mining and Processing, a Rwandese subsidiary of a Swiss company.

All three operators have adopted the ITSCI mineral tracking system. In addition, Rutongo Mines has deployed the Met Trak tracking system, as a pilot project on parts of its concession.

## 1. The ICGLR Regional Certification Mechanism in Rwanda

### **The International Conference of the Great Lakes Region (ICGLR) Regional Certification Mechanism (RCM)**

Rwanda has endorsed the ICGLR regional initiative against the illegal exploitation of natural resources (RINR) as part of the "Lusaka Declaration of the ICGLR Special Summit to Fight Illegal Exploitation of Natural Resources in the Great Lakes Region" of December 15, 2010. The first tool of the RINR is the Regional Certification Mechanism (RCM) that aims to provide the regional framework for mineral certification and supply chain due diligence. The RCM, finalised in 2011 and due to become compulsory within all ICGLR member states is already a legal obligation in DRC and Rwandese law. It requires both mine certification and the implementation of a traceability process for minerals throughout the supply chain. It will allow for tracking of the minerals through an ICGLR-run database, and will require third-party verification.

Rwanda is operationalizing the RCM at the national level through MINIRENA regulation n. 02/2012 of 28 March 2012, stating that after 15 December 2012 *“no one is allowed to export Designated Minerals from Rwanda unless a duly authorized government agent has inspected the mineral shipment and issued an ICGLR Certificate” (art 2).*

The certification process requires the competent Rwandan authorities to review the exporters’ application process by making sure that: 1) checking that complete documentation is provided by the exporter; 2) use the said documentation to ensure that the mine of origin of the minerals is not a red

<sup>1</sup> ICGLR, 2011, *The Mineral Certification Scheme of the International Conference on the Great Lakes Region*, p. 7

flag one and 3) verify compliance with the ICGLR Chain of Custody standards which allow tracking of every step of the mineral shipment<sup>2</sup>

On 27 July 2012 the Rwandan Natural Resources Authority (RNRA), through the Geology and Mine Department (GMD) and the Rwandan Bureau of Standardisation (RBS) signed a Memorandum of Understanding (MoU) “with the aim of developing a permanent channel of communication and collaboration” for the implementation of the ICGLR Regional Certification Mechanism in Rwanda.

To implement the ICGLR RCM at the national level, the MINIRENA has created an ICGLR Steering Committee, whose role is defined as follows:

- Play an advisory and guiding role on the overall traceability strategy;
- Work on big incident reports and solve them where possible;
- Agree with ITRI/ITSCI and RNRA/GMD on what incident reports should be widely shared;
- Include ITRI in advisory role to the Steering Committee<sup>3</sup>;
- Involve all stakeholders from Government to NGOs and Civil Society in the work of the Committee;
- The Mining Sub Sector Thematic Working Group will also function as the Steering Committee on traceability and will be reporting to the Permanent Secretary of the Ministry of Natural Resources.

<sup>2</sup> ICGLR, 2011, *ICGLR Regional Certification Mechanism (RCM) — Certification Manual*

<sup>3</sup> On the 10 of September 2010 the then Rwandan Ministry of Forestry and Mines (OGMR, currently RMRA) and the International Tin Research Institute (ITRI) signed a MoU to “ensure appropriate traceability of minerals mined within Rwanda in order to safeguard future trading opportunities for its mineral resources” [OGMR-ITRI MoU, 10-09-2010]. The MoU defines the responsibilities of the parties as follows:

*ITRI will be responsible for activities such as, but not limited to;*

- *Providing linkage with international industry players and governments and their expectations in the design and operation of the traceability system*
- *Promoting the inclusion and consultation of industry stakeholders in the Project .*
- *Providing information on the ITSCI system to OGMR and any updates on changes determined to be necessary for whatever reason*
- *Arranging for the provision of required Project materials such as tags and logbooks on agreement with, and payment from, OGMR or another party nominated by them*
- *Providing information on the database system utilised by the ITSCI project in DRC and advising on whether a duplicate system is required or whether the same system can be used for Rwandan data*
- *Considering co-operative actions between this Project and other relevant projects such as the BGR-CTC scheme if such cooperation will contribute to the overall aim of establishing effective and verifiable traceability in a timely manner*

*OGMR will be responsible for activities such as, but not limited to;*

- *Promoting the inclusion and consultation of local government, industry and civil society in the Project and the co-operation of any third parties who may be in a position to provide support*
- *Providing the appropriate number of trained staff and equipment resources required to operate the Project on the ground, verify data collected on site and input of data into a suitable data management system*
- *Providing expertise and suggestions on the ITSCI system and advising on any legal aspects of the Rwandan Mining Code which may affect the operation of the Project*
- *Promoting the formalisation of the trading chain through application of national or local laws, and for example, take steps to reduce loss of minerals from the official chain*
- *Taking steps to arrange for import tax exemption for goods such as tags imported for use in the Project and resolving any other such Government related issues .*
- *Considering updating requirements for Rwandan Certificate of Export for minerals in order to ensure official check that traceability requirements have been completed before such export*
- *Providing information on import statistics of mineral concentrate from adjoining countries.*
- *Maintaining up-to-date information on the local military and security situation if relevant and providing such information to ITRI as soon as it becomes available*

At the time of this evaluation, the Steering Committee was not yet operational, and is in the process of defining its procedures.

The structure of the Steering Committee has not been officially drafted yet.

To ensure the chain of custody integrity from the mines to export, the GMD has trained 96 Tag Managers to fill the logbooks provided by ITSCI and seal the mineral consignments with tags labeled "RW Mine" and "RW Négociant". Given the high amount of workload, the GMD has planned to hire additional Tag Managers to bring their total number to 200. The costs of the certification system are bore by the exporters that have to pay a fee of 200 USD to the GMD per each tonne of cassiterite and wolframite exported and 300 USD per tonne of coltan.

## 2. Assessment of Chain of Custody 1: Rutongo Mines to Phoenix Metal Export

### 2.1. Description of Rutongo Mines Supply Chain

Rutongo Mines is 90% owned by the Rwandan government (GoR), with Tinco holding 10% of shares of the joint-venture. Tinco took over from Umhalba Project in 2008, changing the company name to Rutongo Mines. The joint-venture agreement (certificate of incorporation 1892/09/NYR) states that all profits go to Tinco, while the GoR is remunerated through royalties. The current agreement expires at the end of 2013.

Rutongo Mines employs 3742 people, 236 direct staff, and 3506 subcontractors who are miners, support staff and security personnel. As per the data transmitted to the Rwandan Minister of Natural Resources, the concession has produced 66.4 tonnes of tin concentrate for the month of January 2013<sup>4</sup> [Rutongo Mines figures, January 2013] extracted through Artisanal and Small-Scale Mining (ASM) methods.

The Rutongo concession covers a surface of 9476 Ha and is located in the Rulindo district, on the main road from Kigali to Uganda. The concession has 5 different mines, active on primary deposits: Nyamyumba, Gasamba, Masoro, Mahaza and Karambo (see map) and the alluvial exploitation of Nyabugogo. The 6 mines have a total of 40 accesses that are used by the miners to access a large network of interconnected underground tunnels.

#### 2.1.1. Description of the Chain of Custody

##### Step 1: Mining and supplying

The mine supplies minerals through 10 sub-contracted mining companies<sup>5</sup> that work inside the Rutongo concession. Rutongo Mines provides the sub-contractors with protective equipment, explosives, drills and mining and panning tools. The company pays to the sub-contracted mining companies 1597 RWF (Rwanda Francs) per processed kg of cassiterite.

Miners perform all operations of extraction and separation of cassiterite ore inside the tunnels. The ore is then taken out of the tunnels to the 11 weighing and tagging stations: three at the mine of Kasambia, two at Nyamyumba, Masoro and Mahasa and one at Karambo and Kisanzi. Miners carry their production to the weighing and tagging station corresponding to their tunnel in individual open and unmarked bags of 10 to 20

<sup>4</sup> Rutongo manager informed that a 20% loss occurs when upgrading the cassiterite ore to tin concentrate. Thus, some 86 tonnes of cassiterite ore are needed to produce the 66.4 tonnes of tin concentrate (86-20%=68).

<sup>5</sup> Sub-contractors are:

- Ngiru Mining – led by Jean Marie Ngiruossanga
- BJB Mining
- Niyi Mining – led by Joseph Niyiwizi
- Rusa Mining - led by Theogene Rusanganwa
- Habiya Mining – led Leopold Habiyaemie
- Gisanze Mining Company – led by Celeste Minaniy
- NJC Mining – led by Claude Nzeyimana
- HF Mining – led by Felicien Hacineza
- Kambeva Mining – led by Evariste Kambamba
- J&H Mining Co. – led by Helman Gakwisi
- Nyamiumba Tunnel Sud G – led by Augustin Gassawure



kg. Upon exiting the tunnels, miners are inspected by the Rutongo security personnel, to ensure the miners are not stealing ore from the tunnels to sell it outside Rutongo premises, where prices are much higher (up to three times higher) [Interview, 21-02-2013].

### Step 2: Weighing and tagging

At the mines' 11 weighing and tagging stations, the production from the 40 tunnels is brought on a rolling basis (as bags are filled) by the miners at the end of their turn (usually from 2 PM until 6 PM, Monday to Saturday). A Rutongo Mines security officer (from RUSEC) is present at the station and watches bags as they are brought, as was witnessed at the time of the visit.

The Tunnel Captains<sup>6</sup> and a Rutongo Mines supervisor<sup>7</sup> then proceed to the weighing operations:

1. The cassiterite bags brought by the miners are weighed.
2. The name of the producer and weight of the bag are recorded on company logs. (This allows the recording of the exact amount produced by miners, determining their pay.)
3. Individual bags are then mixed together, in 50 to 60 Kg bags.
4. The name of the producing gang leader (designated as a "co-op leader" in the ITSCI logbook) and the exact weight of these bags are recorded in a Rutongo Mine logbook, with the date of production.
5. When bags reach 50 to 60 kg they are closed, but not sealed, and left at the station until the arrival of a GMD Tag Manager.

Once the GMD Tag Manager is present at the weighing station:

1. The 50 to 60 Kg bags are weighed once again;
2. The GMD Tag Manager fills the ITSCI logbook with the information detailed in section 3.1.2 Step 2, below), which he collects first-hand.
3. The GMD Tag Manager seals the bags with an ITSCI "RW Mine" tag, which he brings with him;

The GMD Tag Manager oversees the loading of the tagged bags on a truck belonging to one of the transporters sub-contracted by Rutongo Mines for the movement of mineral consignments inside the concession's premises, for transport to the Rutongo Upgrading Plant.

### Step 3: Transport to Upgrading Plant

Trucks drive to the 11 weighing stations, to collect the tagged mineral bags and transport them to the Upgrading Plant. A security guard from RUSEC<sup>8</sup> is on the truck to escort it throughout the circuit. The name of the driver of the truck is recorded by the GMD Tag Manager in the ITSCI mine site production logbook.

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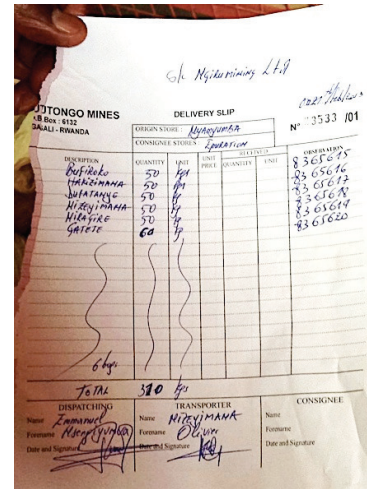
<sup>6</sup> The Tunnel Captains are employed by one of Rutongo's 10 suppliers and supervise the work of their gang of miners and panners in the tunnels. They are entitled the production of their gang and are responsible to pay the miners according to their production. In the ITSCI mine logbook their name is put under the "co-op leader" column.

<sup>7</sup> The mine supervisors are Rutongo mines employees that record the expendable material used and the production of each tunnel for the concession's internal tracking system.

<sup>8</sup> RUSEC is a security company that employs the former guardians of the site before the arrival of Rutongo Mines. RUSEC deploys 330 officers that are not authorized to bring firearms but only sticks. The company's contract with Rutengo officially started on May 2012 and is renewable on a year basis.

The Rutongo Mines supervisor then issues a company delivery slip to the transporter that contains the following information (see picture):

- Date of Consignment
- Mine of origin
- Destination of the consignment (the concession’s Upgrading Plant)
- The names of the producing co-op leaders?
- The individual weight of each bag, and the total weight of the delivery
- The “RW Mine” tags number of the consignment
- The name and signature of the Rutongo Mines dispatching officer from the weighing station
- The name and signature of the driver



At the Nyamyumba weighing station, which is the only one currently running the Met Trak traceability system, the Met Trak terminal needs to be activated by reading the radio-frequency ID (RFID) card of the truck driver and that of the Met Trak operator in order to properly authorize the transport which records the information on the date and time of arrival and departure of the truck<sup>9</sup>. The truck then proceeds to the Upgrading plant.

**Step 4: Upgrading plant and Négociant tagging**

The Rutongo concession has an Upgrading Plant on its premises, used to upgrade cassiterite ore from the six mines on the concession into tin concentrate at 71% grade. Upon arrival at the Upgrading Plant, a Rutongo Mines supervisor controls the delivery slip presented by the driver. He cross-checks the declared content with the consignment received, by verifying the number of bags against the slip. Consignments are also weighed again upon arrival at the Upgrading Plant. If it conforms, he signs it and issues a copy to transporter<sup>10</sup>.

A GMD Tag Manager at the upgrading plant fills in the ITSCI “processing site” logbook (with the information detailed in section 2.1.2 Step 4, below).

Bags arrive at the Upgrading Plant in the evening, usually between 5 PM and 7 PM, where they are stored to be processed the following morning. As it appears in the personal draft notes of the GMD Tag Manager assigned to the Plant the consignments are usually processed a few days after their arrival at the Upgrading Plant (see picture), as there is a backlog of bags from previous days to be upgraded. The GMD Tag Manager at the Plant declared (Interview, 22-02-2013) that because often consignments from different days are assigned to different processing shifts, she writes the tags numbers of the incoming consignments in a draft notebook and not directly in the ITSCI processing site logbook.



<sup>9</sup> A detailed description of the Met Trak system will be presented in the following section.  
<sup>10</sup> According to the mine Operations Manager (interview 22-02-2013) no incident was ever recorded with the internal transport of the minerals, as each truck is escorted by a RUSEC security officer. For that reason no incident report has ever been filed at this stage, although the company has a standard template to that purpose.

At the Upgrading Plant, a series of processes transform the cassiterite ore ( $\text{SnO}_2$ ) into 71% Tin concentrate (Sn), under the supervision of Rutongo Mines security and officers. The upgraded mineral is then dried and brought into a weighing room, and packed in 600 kg bags. Some concentrate that has not dried before the closure of the plant is left on the floor to dry up, and is bagged the following day (see picture).



The 600 kg bag is put on a scale connected to Met Trak system. A Met Trak officer, a Rutongo Mines security guard and a Rutongo Mines officer were in the room to oversee the bagging operations at the time of the visit. The GMD Tag Manager was present at the Plant, but in a room from which she could not witness the bagging procedures (see picture).



The GMD Tag Manager (called by a Rutongo Mines officer at the time of the visit) then fills the ITSCI “processing site” logbook and seals the 600 kg bags with the “RW Négociant” tags.

The tagged 600 kg bags are then stored at the Plant, for transport to the exporter.

#### Step 5: Storage and Transport to exporter’s premises

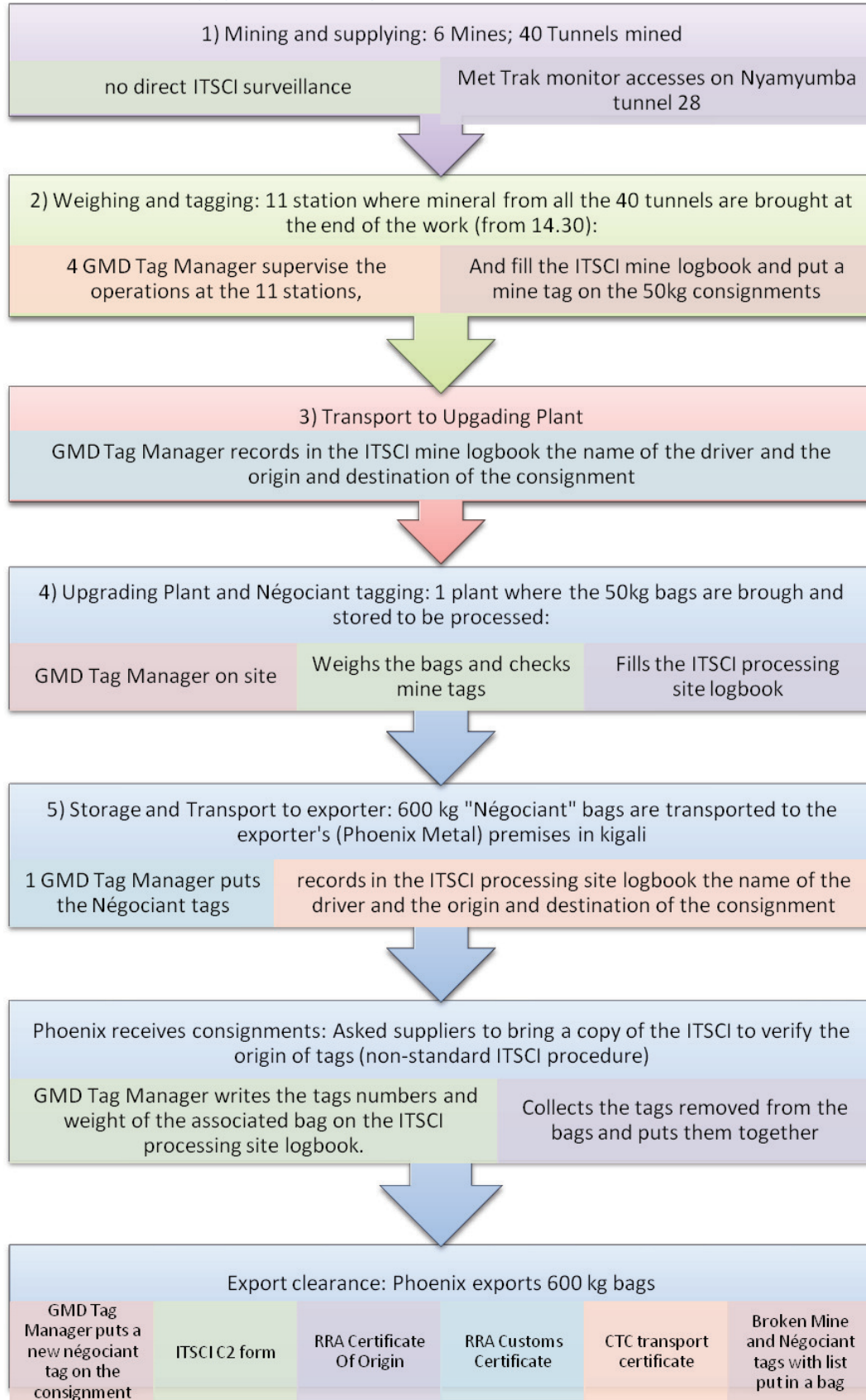
When batches reach 24 tonnes, on average after 5 to 10 days depending on production at the mine, they are sent to the exporter, Phoenix Metals, in Kigali. Transport is made by trucks owned and operated by a supplier of Rutongo Mines. Trucks are escorted by a RUSEC security guard from the Upgrading Plant until arrival at Phoenix Metal’s premises in Kigali. The Rutongo Mines Operation Manager notes down the time of departure, and is informed by the Rutongo Mines security guard escorting the truck once it reaches the exporter’s premises in Kigali.

The GMD Tag Manager records on the ITSCI processing site logbook the transport route from point of origin (the Upgrading Plant) to destination (Phoenix Metal’s premises in Kigali), the method of transport and name of the transporter.

#### 2.1.2. Description of the Traceability System in place

Rutongo has adopted the ITSCI tracking system to ensure traceability of its mineral production. Additionally, it runs the Met Trak system (in parallel with the ITSCI system) in tunnel 28 of the Nyamyumba mine, at one of Namyumba’s two weighing and tagging station and at the concession’s sole Upgrading Plant.

**The ITSCI Traceability System at Rutongo Mines**



### Step 1: Mining and supplying

The ITSCI tracking system at Rutongo is implemented by Tag Managers hired by the GMD<sup>11</sup>. 6 Tag Managers have been deployed for the whole concession (and 2 are permanently based at the Upgrading Plant), comprising 40 mine tunnels and 11 weighing stations.

### Step 2: Weighing and tagging

4 ITSCI officers (the GMD Tag Managers) are responsible for covering the 11 weighing and tagging stations, where individual bags are transferred to 50-60 kg bags to be tagged with the "RW Mine" tags. Once the Tag Managers arrive at a station:

1. The 50-60 kg bags are weighed again;
2. The GMD Tag Manager fills the ITSCI mine site logbook with the following information:
  - a. Name of the mining company
  - b. Type of mineral
  - c. Name and code of the mine
  - d. Date and time
  - e. Name of the producing miner and weight of each individual bag. This information is copied from the Rutongo Mines mine book that has been filled when miners and Tunnel Captains have brought the mineral from the tunnels to be mixed in the 50 kg bags
  - f. Name of the co-op leader (the Tunnel Captain)
  - g. Number of the "RW Mine" tag
  - h. Weight of each tagged bag and total weight of the consignment
  - i. Name of buyer (Rutongo Mines Ltd) and price
  - j. Approximate Grade
  - k. Transport method, route and name of the transporter
  - l. Signatures of the GMD Tag Manager, Mine representative and Security officer;
3. He seals the bags with a "RW Mine" tag that he brings with him;
4. He oversees loading of the tagged bags on a truck that transports them to the Rutongo Upgrading Plant.

### Step 3: Transport to Upgrading Plant

The ITSCI officers (who are the GMD Tag Managers) note on the logbooks the following information regarding the transport of consignment:

- Transport point of departure and destination
- Method of transport
- Name of the transporter (without mentioning his Identification or driving license number)

He then moves to his next assigned weighing and tagging station to repeat the procedures.

### Step 4: Upgrading plant, weighing and Négociant tagging

An ITSCI officer (the GMD Tag Manager) on site records the following information on a notebook:

- Date and time of arrival
- "RW Mine" tags numbers
- Mine of origin
- Weigh of individual tagged bags and total weigh of the batch (before processing)

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<sup>11</sup> PACT is the implementing agent of ITSCI in Rwanda: it ensures the liaison between the ITRI Hq in London and the GMD and mine operators in Rwanda and contributes to the training of the Tag Managers. PACT does not hire or pay the Tag Managers, which are hired by the GMD and paid with the 200 USD fee that it levies on the exporters per tonne of cassiterite and wolframite (300 USD per tonne of coltan).

Once the upgraded cassiterite is ready to be put in the 600kg “Négociant” bags provided by Phoenix Metal, the ITSCI officer (the GMD Tag Manager) fills the ITSCI “Processing site” logbook with the information recorded on her draft notebook, and adds the following information:

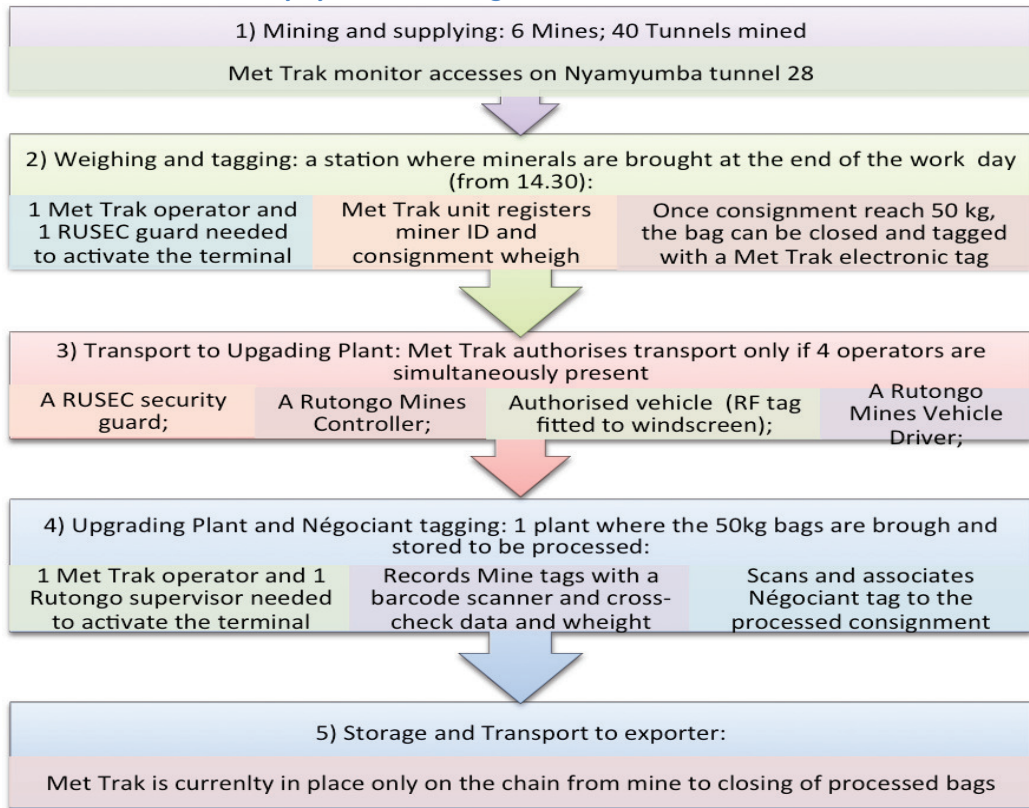
- Négociant tag number associated with the consignments.
- “RW Négociant” tag sealing the 600kg bag
- Weight of the bag and total weight of all the bags in the consignment after processing
- Price in USD per Kg and Grade of the concentrate
- Number of logbook pages that compose the batch
- Name and signature of the ITSCI officer (the GMD Tag Manager)
- Name and signature of the Rutongo Mine officer present during the operation
- Name and signature of the security guard present during the operation.

The image shows a handwritten ITSCI logbook for Rutongo Mines LTD. The form is titled 'PROCESSING SITE: RWANDA' and includes fields for 'Processing Site', 'Mine', 'Miner', and 'Consignment Name'. It contains a table with columns for 'DATE', 'TIME', 'MINE TAG NUMBER', 'MINE OF ORIGIN', 'WEIGHT IN KG', 'NEGOCIANT TAG NUMBER', 'WEIGHT OUT (KG)', 'PRICE (\$/KG)', and 'AGREED PRICE (\$/KG)'. The 'Total weight in bag' is noted as 1024.9. There are also sections for 'CHECKED AND APPROVED BY' and 'CHECKED AND APPROVED BY PROCESSOR REPRESENTATIVE' with handwritten names and signatures.

**Step 5: Storage and Transport to exporter’s premises**

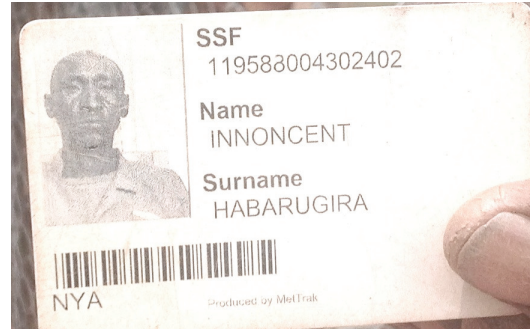
The ITSCI officer (the GMD Tag Manager) reports on the ITSCI processing site logbook the transport route from point of origin (Upgrading Plant) to destination (Phoenix Metal), method of transport and name of the transporter.

**The Met Trak Traceability System at Rutongo Mines**



Met Trak is a digitalised tracking system developed by the South African company of the same name, which “tracks all of the mining processes from the mine tunnel through to the end user and has a comprehensive audit trail” [company website, accessed on 03-03-2013]. It is currently running on a pilot phase at tunnel 28 of the Nyamyumba mine, and one of its 2 weighing and tagging stations and at Rutongo’s centralized Upgrading Plant.

The system works by means of radio-frequency identity cards (RFID) that are issued to the personnel of designated areas. These RFIDs can be read by remote captors, located at “action points” (tunnel entry, weighing and tagging station, transport vehicles, Upgrading Plant). Once an action point is activated by a card, it starts registering the activities connected to that card, such as time of entry in and exit from the tunnels, or time of consignment of minerals. Different action points can be set up to be activated by a specific combination of RFID, when more than one person is required to undertake or supervise operations.



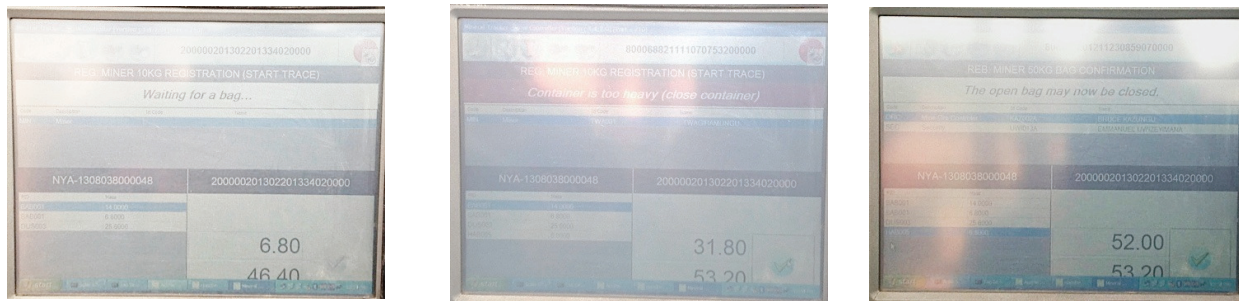
Met Trak combines automated data collection and analysis, and procedures activated by human interaction. It produces data and incident alerts that are received in real time by the system’s control room in Rutongo’s main offices. Some alerts appear on the user’s terminal while others are visible only by the control room.

### Step 1: Mining and supplying

Each miner working at Nyamyumba tunnel 28 has been issued a Met Trak identification card that is both barcoded and emits a unique radio frequency (RF), allowing it to be read by sensors at a distance. RF Identification. A sensor located at the tunnel’s entry reads the RF identification of miners, registering their identity, their time of entry and of exit. The system produces an alert when a miner wearing an RF card assigned to work in a given area tries to enter another area.

### Step 2: Weighing and tagging

The Met Trak system at Nyamyumba weighing station needs to record the combined presence of a Met Trak operator and a RUSEC security officer’s RF cards to allow the weighing. A bag cannot be closed for tagging until it reaches a minimum weigh of 40kg (*see picture*).



Once bags reach 50 to 60 kg, the Met Trak operator closes the bag and puts a Met Trak electronic tag, which is an RF emitter with a permanent and unique identifier. It can react at a distance with the Met Trak captors, like the RF ID. Physically, the Met Trak tags are square of hard plastic slightly bigger than a passport photo. Once the tag is put, the operator closes the 50 kg bag<sup>12</sup>.

<sup>12</sup> As Met Trak runs in parallel with ITSCI, the bags tagged with the Met Trak captor are closed but not sealed, to allow the GMD Tag Manager to inspect them and then seal them with the “RW Mine” tag.



A paper receipt is printed and issued to the miner as a proof of the consignment.

### Step 3: Transport to Upgrading Plant

For the system to authorise the transport, the following RF cards must be simultaneously read at the weighing and tagging station:

- A RUSEC security guard;
- A Rutongo Mines Controller;
- A Rutongo Mines Vehicle (with a RF tag fitted to windscreen, like that of a highway free pass);
- A Rutongo Mines Vehicle Driver;

each of whom are issued an RFID card.

If the truck leaves without all requires cards being recorded, the system sends an alert to the Met Trak control room.

### Step 4: Upgrading plant, weighing and Négociant tagging

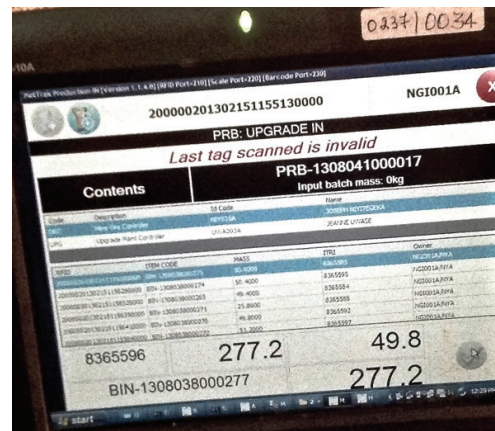
A Met Trak sensor at the Upgrading Plant reads the information from the Met Trak tags of the bags and matches them with the system information received from the weighing and tagging station.

To start the registration of the bags at the Upgrading Plant, a Met Trak operator and a Rutongo mine officer must swipe their RF cards at the Met Trak terminal of the Upgrading plant.

The Met Trak operator starts reading the ITSCI “RW Mine” tag with a barcode scanner and the electronic Met Trak seal (with a dedicated scanner). The system is thus able to tell if there is any difference between the information reported on Met Trak and ITSCI tag.

If a mismatch occurs, the system displays an alert and sends it to the control room for verification and automatically generates an incident report. The system remains locked preventing further operations until the following procedures are followed:

- Re-weighing of consignments
- Re-scanning of the Met Trak and ITSCI tags
- Manually resetting the procedure (in which case an additional alert is registered at the Met Trak control room)





During the visit one of such mismatches occurred so it was possible to observe the behaviour of Met Trak<sup>13</sup>.

After processing, the Tin concentrate is put in 600 Kg bags linked to a Met Trak scale that registers the weigh of the processed bag. Once the ITSCI “RW Négociant” tag is put, the Met Trak operator scans its barcode for it to be linked to the Met Trak electronic sensor and uploaded into the tracking system

#### Step 5: Storage and Transport to exporter’s premises

As Met Trak is currently used only as an internal tracking system at Rutongo, in a pilot phase, it has not been set up to trace product after it leaves the Upgrading plant.

## 2.2. Description of Phoenix Metal Supply Chain

Phoenix Metal is located in Karuruma, a suburb some 7 km away from the center of Kigali. It was formerly REDEMI, a state company running a cassiterite smelter in Karuruma, now privatized. In 2002 London-based Niobium Mining Company (NMC), who changed its name to Phoenix Metal S.a.r.l. in 2005, bought the Karuruma plant.

### 2.2.1. Description of the Chain of Custody (chain of custody)

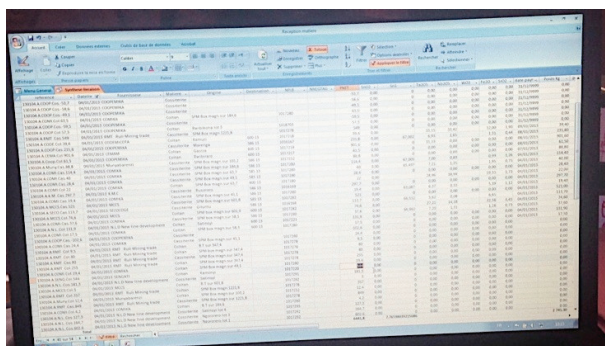
#### Step 1: Mining and supplying

Phoenix Metals buys minerals from 89 mines and comptoirs. Each new supplier must undertake a due diligence assessment by one of the company’s geologists, who visits supplier premises to assess if its production is in line with the physical capacity of the mine or of the processing site. The due diligence also assesses work conditions and environmental impact.

#### Step 2: Weighing and tagging

Phoenix Metal CEO, Raphael Ritter de Zahony has developed an Ms Access-based internal tracking system that registers information on the chain of custody of its consignments.

The consignments are weighed and a Phoenix Metal operator scans the RW Mine (and/or Négociant) tags with a barcode scanner. The tags number, weigh, date and time of the consignments are uploaded into the company’s Access database (see picture). The information is also manually written in a receipt that is issued to the supplier.



The tags are then broken and given to the GMD Tag Manager who records them into the ITSCI processing site logbook. The GMD Tag Manager has an office in the premises where she stores the logbooks and the broken tags, although there is no locker to secure the sensitive documents when the GMD Tag Manager is working outside the office (as during the visit on 26-02-2013).

<sup>13</sup> In the case observed, no mismatch resulted from the analysis of the ITSCI mine site and logbook and of the “RW Mine” tag number of the bags. After trying to re-scan the “RW Mine” tag number, as the error persisted, the system had to be restarted. The Met Trak administrator in the control room explained that this situation can happen when the barcode of the GMD tags is damaged and thus not correctly read by the barcode scanner.

After weighing, 3 samples are taken from each mineral consignments brought to Phoenix: 2 to be assayed by the internal laboratories (mechanical and chemical) and one for the independent laboratory Alex Stewart international.

The results of the assaying determine if a consignment can be directly exported (as it is the case for Rutongo) or if it needs further processing and upgrading.

### Step 3: Transport to Upgrading Plant

Minerals are upgraded at a plant that is contiguous with the delivery area. The short distance between the two sites is monitored by CCTV. Unarmed guards of the Rwandan security company Hisec constantly patrol the premises.

### Step 4: Upgrading plant, weighing and Négociant tagging

The Upgrading Plant at Phoenix Metals has 2 independent units working independently 80% of the time (for the remaining 20%, the units work in chain) to upgrade minerals through mechanical (density and precipitation) or magnetic separation procedures. The units can each process 500 kg of minerals per hour, although a normal upgrading cycle takes up to 5 hours (hence a capacity of 1000kg every 5 hours). Minerals from different mines are not meant to be mixed, and the plant is under CCTV surveillance.

The processed minerals are brought back to the delivery area where they are tagged with a RW Négociant tag under the supervision of a GMD Tag Manager (who fills the ITSCI processing site logbook) and Phoenix Metal store manager and reception officer.



### Step 5: Storage and Transport to exporter's premises

Minerals are then stored at the Phoenix Metal premises, until loaded to 24 tonnes trucks to be exported through the Tanzanian port of Dar es Salaam. The storeroom is monitored by movement sensors to ensure that the consignment cannot be manipulated during closing hours. Additionally, once closed, the storeroom (and any other site where consignments are stored, such as containers) are sealed by the Phoenix Metal CEO or by the store manager with yellow seals that must be broken to access the sites, thus revealing any subsequent opening of the sites (*see picture*).



The Phoenix Metal store manager fills the documents required by the Rwandan authorities (RRA Customs declaration, RRA Certificate of origin, CTC transport document, ITSCI C2 form) to authorise the export and the GMD Tag Manager fills the ITSCI exporter receipt logbook.

## 2.2.2. Description of the chain of custody tracking system in place

### The ITSCI Traceability System at Phoenix Metal

#### Step 1: Mining and supplying

When consignments of minerals are delivered to Phoenix Metal, they are tagged with ITSCI tags (Mine or Négociant tags, depending on the supplier). Minerals from the Rutongo Mines will bear Négociant tags. However, Phoenix also asks its suppliers to provide a copy of the corresponding ITSCI logbooks, a requisite for accepting mineral consignments from them.

#### Step 2: Weighing and tagging

An ITSCI officer (a GMD Tag Manager) is permanently assigned to Phoenix Metal to oversee the weighing and removing of ITSCI tags (see picture), and prevent “contamination” by inclusion of minerals from other mines. The ITSCI officer fills the processing site logbook with:

- The site name (Phoenix Metal) and the type of mineral supplied
- The date and time of the consignment
- The tag numbers and weigh of the consignments

#### Step 3: Transport to Upgrading Plant

As all the movement of minerals occur in the same premises, the GMD officer does not transport details in the ITSCI logbooks.

#### Step 4: Upgrading plant, weighing and Négociant tagging

After the minerals have been upgraded, they are brought back to the delivery area where the ITSCI officer (present on site during the whole process) records the information in the processing site logbook.

#### Step 5: Storage and Transport to exporter’s premises

The GMD officer keeps all the broken RW Mine and RW Négociant tags and saves them, together with a list of the tags, which has to accompany the shipment of the minerals.

The GMD officer then fills the export receipts logbook with:

- The mineral exported
- The name of the exporter (Rutongo) and of the trader (Sideral)
- The list of Rutongo RW Négociant tags and the weigh of each lot (600 kg)
- The ITSCI shipping code
- The type of transport from the Phoenix Metal premises to the port of export (Dar es Salaam).

## 2.3. Assessment of Compliance of Chain of Custody 1

### 2.3.1. ICGLR Standard 4.6 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*Mineral consignments only originate from mine sites defined as Certified according to ICGLR standards. (Explanatory note: "Certified", for the purpose of this evaluation, shall include both green- and yellow-flagged mine sites in Rwanda. It explicitly excludes any red-flagged mine sites).*

The Rutongo Mines concession has been inspected in October 2012 and was classified as a "Green Flag" site, since it met the standard requirements of the ICGLR.

The six mine pits included in the Rutongo concession have a total of 40 entry points to the tunnels. These entry points are controlled by the Rutongo Mines security personnel, who physically inspects miner when they enter and leave the tunnels to ensure they are not trying to smuggle cassiterite in or out the mine. Additionally, each of the ten sub-contractor co-operatives of miners has a designated tunnel manager who supervises the miners in his team.

#### The ITSCI Traceability System at Rutongo

Four ITSCI officers (who are GMD Tag Managers) cover the mine's 11 weighing and tagging stations between themselves. An additional officer is permanently assigned to the Rutongo Upgrading Plant.

Once the mineral consignments are tagged with the "RW Mine" tag and the logbook duly filled, the ITSCI system ensures along the chain of custody that the content originates from a certified mine site. The Mine and Négociant tags issued to Rutongo are identifiable from the first digits of the code ITSCI has attributed to it: 8365 for the Mine tags, and 8094 for the Négociant tags.

The ITSCI definition of "mine site" differs from the standard of the ICGLR. The latter considers the entire Rutongo concession as a single "mine site", while ITSCI assigns a unique number to each of the six mine pits (Nyamyumba, Gasamba, Masoro, Mahaza, Karambo and Nyabugogo) in the Rutongo concession.

The ITSCI officers (the GMD Tag Managers) have established an office in the Rutongo area where the tags and logbooks are locked and stored. They process data on laptops when required.

#### The Met Trak Traceability System at Rutongo

Each miner and transporter working at Nyamyumba tunnel 28, where the Met Trak system is being piloted, has been issued with a Met Trak identification card that is both barcoded and has a radio frequency (RF) technology, allowing it to be "read" and recorded by remote sensors. A receiver at the tunnel entry reads the miners' cards, registering their identity, time of entry and time of exit.

The following criteria are applied when issuing Met Trak RF Identification:

1. Miners and transporters must present valid Identification documentation
2. Each one is finger printed when registered
3. RF Identification cards display a photo and unique Identification number for the holder

The Met Trak system is password protected. RF Identification cards can only be generated by authorised users of the system.

Miners issued a card are limited to designated areas only. Card holder straying from these selected areas will be recorded by the system, which will produce and record an alert. The time at which a card holder exits from a tunnel, and the time at which he reaches the weighing and tagging station are recorded by the system. At the weighing station, the cards of both the miner and of the designated Rutongo Mines security officer must be “read” and recorded by the system for weighing operations to be allowed. Once a Met Trak electronic tag is assigned to a consignment, the information is immediately recorded, and sent along to the following step of the chain of custody.

### Risks in the process and tracking system

#### ICGLR Mine Inspection

Although the Rutongo Mines concession is certified as a “green” mine under the ICGLR mechanism at the time of this review, there is currently no mechanism in place at Phoenix Metal Export to ensure mineral consignments are systematically sourced from ICGLR certified mine sites.

#### ITSCI

The ITSCI system does not trace minerals prior to their arrival at the weighing station, where they are first recorded in the logbooks. In Rutongo, there are 40 tunnels and limited security personnel to monitor activities and presence between the mine pits and the weighing station.

Rutongo has 11 weighing stations, the operations of which are monitored by four ITSCI officers (the GMD Tag Managers). By definition, these operators cannot monitor activities at all 11 stations simultaneously. The risk is mitigated by other checks in the ITSCI system, such as the determination of mine production capacity in the baseline study, as well as the number of tags issued. Mine tags are issued to each mine at the rate of its consumption, thus significant changes to minerals tagged at Rutongo Mines could be noted. It is not clear however, who would be responsible for noting such changes and ensuring appropriate follow-up measures are taken.

Furthermore, ITSCI cannot certify (again besides the vigilance at Rutongo mine) that the consignments left unsealed at the weighing stations while waiting for the ITSCI officer (the GMD Tag Manager) to come and start tagging is not altered or contaminated with production non originating from a certified site.

#### Met Trak

The Met Trak station installed at Rutongo has no power backup. In the event of power cuts, operations must therefore be suspended.

As Met Trak for the moment runs only as an internal tracking system, the bags that are processed through Met Trak cannot be sealed with a RW Mine tag until the arrival of the GMD Tag Manager. Therefore, the information registered on the Met Trak tag could be different from those registered by the GMD Tag Manager on the ITSCI mine site logbook at his arrival.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.6 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

##### ICGLR Mine Inspection

It is recommended for Phoenix Metal to formally commit to and establish the necessary internal procedures to ensure minerals are purchased from ICGLR certified mines.

### ITSCI

The ITSCI system relies on the monitoring of critical steps of the chain of custody by individuals, the ITSCI officers (GMD Tag Managers). Four operators have a limited capacity to monitor all operations undertaken simultaneously at different weighing stations and ensure no mineral from outside the Rutongo concession is brought to the station. The number of operators should be increased, particularly in light of the large surface of the concession.

### Met Trak

The Met Trak system is able to run on an alternate power supply (batteries and solar panels) when a reliable power supply is not available. This solution should be implemented, so as to not interrupt operations during power cuts.

#### 2.3.2. ICGLR Standard 4.7 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*Mineral consignments from Certified mine sites are fully traceable through their accompanying documentation from the mine of origin up to the point of export.*

### ITSCI

Documentation from the ITSCI tracking system at Rutongo allows for consignments to be traceable from the tagging point (NB: NOT from the pit of origin) through the processing phase (where “RW Négociant” tags are put and registered) to the point of export.

ITSCI logbooks are delivered in three copies: one for ITSCI, one for the mine or comptoir/processing site operator and one for the GMD, allowing each different actor of the chain of custody to cross-check and verify its copy of the logbook with the other(s).

Individual miners production is registered in the mine logbook, allowing identifying the producer of each single consignment that is then mixed in 50kg bags at the weighing and tagging station. Likewise, the name of the co-op leader to whom the 50 kg tagged production is entitled is also reported on the logbook.

ITSCI tracking system is designed so that each actor in the chain of custody shall refuse a consignment from the previous level that is not accompanied by the relevant documentation (logbooks and tags). As information from a step of the chain of custody is reported into the following level, if any is missing or incorrect, the chain of custody is broken.

### Met Trak

A consignment tracked through the Met Trak system can be followed in real time from the weighing and tagging station until it leaves the Rutongo premises after having been tagged with a Négociant tag.

Each producing miner is issued a paper receipt by the Met Trak terminal at the weighing station as a proof of his production and his or her RF Identification details are stored into the system. The same happens for the co-op leaders to whom the tagged 50 kg lot is entitled.

The movement of the miners inside and outside the pits of origin (time of entry and exit) is recorded by the Met Trak system.

The system also records information on the transporting vehicle (from weighing station to the Upgrading Plant) via a Met Trak seal fitted on the windscreen.

### Risks in the process and tracking system

#### ITSCI

The main risk connected to the ITSCI tracking system is its slow reaction capacity to incidents. All the logbooks for the different step of the chain of custody are currently manually filled by the GMD employees (who often commit mistakes due to the amount of data to record or because of inadequate training), and then brought to the PACT office in Kigali (who implements ITSCI in Rwanda). The logbooks are scanned and transmitted to the ITRI Hq for data to be manually inserted into the Maximo database that verifies their consistency. If an anomaly is detected, the system sends a request for investigation back to PACT, who in turn starts the investigation. The whole process actually takes several weeks from the time the information is scanned to ITRI Hq to when an incident verification request is sent to PACT. During that period, the suspected mineral consignments have already entered the downstream supply chain. It is noted that efforts are underway to implement electronic scanning which would address this concern.

#### Met Trak

In terms of collecting information along all the steps of the chain of custody, Met Trak does not seem to be exposed to particular risks, besides two that depend from its fully automated and digital nature:

1. In case of any dispute on data generated by Met Trak, there is no physical source (besides the ITSCI logbooks) to verify the data tracked by Met Trak
2. The possibility of the system administrators to influence the way data are transmitted should be clearly stated and communicated to the relevant.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.7 |  | Partially compliant. |
|---|--|----------------------|

### Recommendations:

#### ITSCI

ITSCI officers could use a Personal Data Assistant (PDA), like the ones used in logistics warehouses (eg DHL) instead of paper logbooks. If implemented with a real-time (or short delay) data transmission from the operator's terminal to the ITSCI system (ideally through Satellite, 3G or similar link), this system will allow for real-time monitoring of data entered into the ITSCI system, allowing for immediate reaction in case of incident. It is reported that a PDA is currently employed on a 5 month trial basis. However, this information was not verified in the course of the assessment.

Furthermore, it will reduce the transcription errors linked to handwriting interpretation and consequently the number of data processing officers needed to upload all the information on Maximo, thus reducing operational (and consequently end-user) costs. Finally, it will reduce the costs and environmental impact of physically printing copies of the logbooks.

According to the PACT Programme Manager in Kigali, ITSCI is currently exploring the feasibility of providing field agents with PDA instead of paper logbooks.

#### Met Trak

The risks identified are strictly connected with the fully automated nature of the Met Trak data tracking system and thus cannot be addressed.

**2.3.2 ICGLR Standard 4.8 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

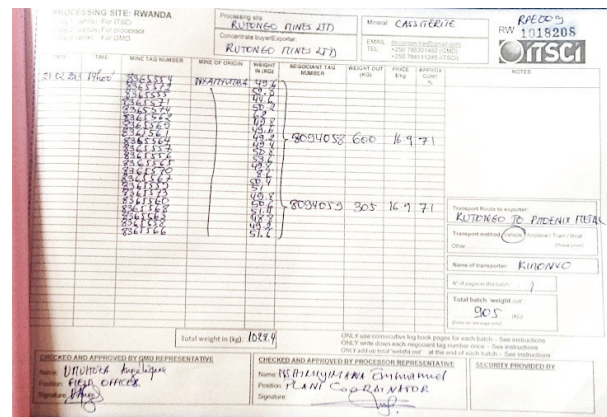
*Mineral consignments from Certified mine sites are fully physically separated from mineral consignments from other sites, from the mine site to the point of export. Mineral consignments from different Certified mine site may be physically mixed provided the relative proportions of minerals from different certified mines of origin remain traceable.*

At Rutongo Upgrading Plant, the 50-60 kg consignments from each of the six mines in the concession are upgraded to 71% grade tin concentrate and mixed in 600kg “Négociant” bags (thus each bag mixes 10 to 12 consignments). At the time of the visit, only consignments from the Nyamyumba mine were mixed into the 600 kg bag.

The GMD mine tag logbook seen during the visit on (22-02-2013) did not report any “RW Mine” tag number not belonging to the Nyamyumba mine (see picture).

**ITSCI**

The ITSCI logbook allows tracking back the origin of the mixed consignment by associating the “RW Négociant” tag of the 600kg bags of processed tin concentrate with the “RW Mine” tags of the unprocessed consignments that compose the batch. The mine tags registered by the ITSCI officer in the processing logbook at the time of the visit, all reported “Nyamyumba” as origin and all belonged to a series starting with 8365 that the PACT Programme Manager (visited on 23-02-13) recognised as the ITSCI internal number for that mine

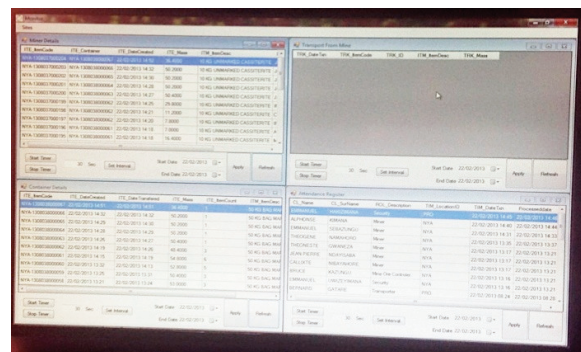


As pointed out in “Description of Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession”, the definition of “mine site” used by ITSCI differs from that defined by the ICGLR standards

**Met Trak**

The Met Trak system currently in place at Rutongo registers (via barcode scanning) the GMD and Met Trak tags numbers of each consignment, certifying the origin of the content of the 600kg “Négociant” bags.

The information on each individual untagged consignment, on the 50 kg tagged bags, on transport and destination and on what consignment is mixed into the 600 kg “Négociant” bags at the Upgrading Plant can be followed in real time on a laptop at the control room (see picture).





### Risks in the process and tracking system

There are currently no procedures in place to ensure mineral consignments from ICGLR certified mines are physically segregated from those originating in non-ICGLR certified mines. Although the Rutongo Mines concession is ICGLR certified at the time of this review, Phoenix Metal may purchase tagged mineral consignments from other concession that have not yet successfully undergone a ICGLR mine inspection.

#### ITSCI

The current format of mine tags designed by ITSCI for Rwanda only reports a generic “RW Mine” and a 7-digit progressing number not including the mine of origin’s unique number (picture). This prevents processing centres from detecting if there is an inconsistency between the declared Mine of origin (as reported in the ITSCI logbook) and the tag number.

The same happens with Négociant tags that do only state “RW Négociant” and a 7-digits progressive number.

#### Met Trak

No risk identified at this stage.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.8 |  | Partially compliant. |
|---|--|----------------------|

### Recommendations:

It is recommended for Phoenix Metal to commit to as well as establish a procedure to ensure physical segregation of ICGLR certified mineral consignments from non-ICGLR certified consignments throughout transportation, handling, storage and processing.

#### ITSCI

Proposed solution: the current 7-digit code allows for 9.999.999 tags. A combination of numbers and letter following a 3-digits unique mine information number (as there are currently less than 999 mines operating in Rwanda) will generate the same amount of possible unique tags, eg “RW Mine” 101 (unique mine code) AA000 – ZZ999 (alphanumeric progressive code).

#### Met Trak

No corrective measures are needed at this stage.

### 2.3.3 ICGLR Standard 4.9 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*The supply chain of mineral consignments is conflict free. For the purpose of the ICGLR Tracking and Certification Scheme, 'conflict free' means that none of the actors in the mineral chain contribute at any time, through the extraction, transport, trade, handling or export of minerals, to any direct or indirect support to non-state armed groups or public or private security forces engaged in illegal activity and/or serious human rights abuse. Direct or indirect support" to non-state armed groups or public or private security forces through the extraction, transport, trade, handling or export of minerals includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces or their affiliates who:*

*4.9.1 illegally control mine sites or otherwise control transportation routes, points where minerals are traded and upstream actors in the supply chain; and/or 4.9.2 illegally tax or extort money or minerals at points of access to mine sites, along transportation routes or at points where minerals are traded; and/or 4.9.3 illegally tax or extort money or mineral shares from mine site owners, mine site operators, intermediaries, traders, export companies, or any other actors in the upstream chain of custody.*

Rutongo does not have agreements with police to provide for security to the mine but Police and military patrol the area as a part of their normal duties<sup>14</sup>. Rwandan armed forces escort the explosives used at the plant, but do not guard them in fixed position: military and police elements performing their duties inside the concession's area remain paid by their respective Ministries (Rutongo has never requested for extra protection to the police or armed forces).

Security at Rutongo is provided by RUSEC, a security company formed by the former guardians of the site, that has 330 officers, some of them armed with sticks, but non with firearms.

The company's sole owner is Mr Jean Paul Musoni who incorporated RUSEC (on 25-07-2011) at the Rwandan Development Board (RDB) by paying a 10.000 Rfr registration fee and upon display of his judiciary history. The company's contract with Rutengo officially started on May 2012 and is renewable on a year basis.

Armed security: 29 armed guards hired through INTERSEC security guard the explosive depots in the mines of Rutongo: they work in team of 2 with shifts every 12 hours and change assignment every 5 months. INTERSEC armed guards report to their hierarchy but not to the police and stay overnight inside the concession (22 live inside the concession). INTERSEC is one of the biggest private security companies in Rwanda and have been selected directly by Rutongo Mines CEO, without a tender of competitive bid. INTERSEC engagement with Rutongo started in 2012, when INTERSEC replaced the former Rutongo armed security (Top Sec) as they "failed to meet their obligations" [Rutongo Mines officer, 2013 interview].

## ITSCI

ITSCI tracking system only requires that a security officer is present at every tagging operation to countersign the logbooks. Besides this assurance, the system is not designed to the overall resilience of a mine chain of custody from supporting non-state armed groups in any of the ways described under ICGLR standard 4.9.

## Met Trak

By electronically registering and fingerprinting the operators upon issuing the RF Identification, Met Trak allows identifying all the operators at the mine and preventing them access to the operation if they come under investigation for alleged breach of the provisions of ICGLR standard 4.9

## Risks in the process and tracking system

<sup>14</sup> Villages, plantations and other human activities ran by the people of the region are inside the concession, although not being connected to Rutongo Mines Ltd. The police patrols those villages as part of their normal duties.

Niether RUSEC and INTERSEC (as every Security Company in Rwanda) report to the Police or the Ministry of Interior , and are simply authorised by the RDB as any other private company.

RUSEC Employees are in large part residents from the villages in Rutongo area that do not receive specific trainings (other than basic physical training) before starting working at Rutongo. To be hired by RUSEC they need to bring a valid Identification and a certificate attesting the absence of criminal records, delivered by the local "cellule" (the lowest level of the police) that has no mean to verify complete criminal history or affiliations of employees besides traditional knowledge of the employees as members of the community.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.9 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

RUSEC security guards should receive thorough police clearance and the result clearly disseminated to clearly show the absence of past or present links of the security guards to any of the groups described under ICGLR standard 4.9. Furthermore, RUSEC guards should receive a formal training programme (developed by the ICGLR, the GMD or ITSCI) on the chain of custody integrity that includes standards such as human rights, work conditions and other aspects of the mineral Due Diligence.

#### 2.3.4 ICGLR Standard 4.10 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*Tracking data from the mineral chain and the Chain of Custody tracking system are transmitted to the ICGLR Secretariat. The data from the Chain of Custody system shall be transmitted to the ICGLR Secretariat in full, in its unprocessed state. The data shall not be redacted, aggregated, grouped, or otherwise processed in any way that might serve to hide, disguise, obscure or otherwise impede the ability of the ICGLR Secretariat to have full access to every particular of every parcel, lot or shipment of Designated Minerals.*

Rutongo Mines delivers monthly hardcopy reports to the Ministry of Mines with aggregated data (Sales, Production, Investment plans, Accidents) as well as production statistics to the National Bank of Rwanda and National Institute of Statistics. Information provided on production is traceable through Rutongo Mines internal documentation<sup>15</sup>.

All chain of custody data is internally stored on a server with enough capacity to keep them for at least five years (thus complying with the ICGLR standard 4a 1 as well).

Rutongo has a confidentiality clause in its JV contract with the Ministry of Mines that prevents it from publically disclose data on the JV (Clause 16 of the JV agreement). Likewise, audit to Rutongo have to sign a non-disclosure clause. According to the law, NGOs and citizens are not allowed (besides auditors, ITRI, ICGLR) to ask for access to financial info of a company.

Rutongo Mines keeps the documents for royalties paid, VAT declaration and withholding tax declaration but does not share them to the public (nor on the website).

#### ITSCI

<sup>15</sup> The ICGLR Mineral Certification Scheme standard 4a 2 states that, in addition to paying fees and taxes to the government, these should be disclosed "in accordance with the Extractive Industries Transparency Initiative (EITI) principles". This provision would hardly be applicable to Rwanda that does not have so far endorsed the EITI.

A copy of each ITSCI logbook is for the GMD, who in Rwanda ensures the implementation of the ICGLR system. The manual transmission of data from ITSCI to GMD could be improved by making use of electronic rather than paper logbooks.

### Met Trak

As Met Trak is currently only used for Rutongo internal tracking purposes, it does not send its data to the GMD. The system is designed to send data “*in the lowest grade of aggregation*” (Rutongo self-assessment questionnaire, 2013) to the ICGLR (through GMD in the case of Rwanda) in real time.

### Risks in the process and tracking system

#### ITSCI

The risks for ITSCI at this stage derive from the slow transmission of data to the ICGLR and have been analysed in section 2.3.2 above.

#### Met Trak

As Met Trak is currently only used for Rutongo internal tracking purposes, it does not send its data to the ICGLR.

|  |  |                      |
|--|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.10 |  | Partially compliant. |
|--|--|----------------------|

### Recommendations:

#### ITSCI

The recommendations in section 2.3.2 above apply to this point as well.

#### Met Trak

No recommended action since the system is designed to send disaggregated data to the ICGLR if fully accepted.

### 2.3.5 ICGLR Standard 4.11 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*The system is transparent in its documentation and decision making structures. The existence and status of all participants in the ICGLR Mineral Tracking and Certification System (including but not limited to mine operators, traders, processors, comptoirs and smelters) shall be publicly disclosed, along with any ICGLR administrative reports or audits pertaining to that status. The decisions of the ICGLR Secretariat and Committees must be publicly disclosed, along with the underlying documentation supporting those decisions.*

#### ITSCI

Rutongo Mines Ltd joined the ITSCI programme as a full member on the 5<sup>th</sup> of May 2011. Data disclosed by Rutongo under the ITSCI tracking systems are considered confidential between the parties and treated accordingly to the provisions of Article 9 “*Confidentiality and data handling*” of the ITSCI Membership

Programme Agreement. Every request to access these data shall be addressed to the ITRI secretariat in London<sup>16</sup>.

### Met Trak

Actually, Met Trak would not comply with this requirement in what its governance structure and ownership have not been disclosed. Furthermore the system allows “Via a subscription/authentication model to retrieve and locally save data for reporting and analysis” [Rutongo Self-assessment questionnaire, 2013] without disclosing the identity of these “subscribers” to the users of the system.

### Risks in the process and tracking system

#### ITSCI

The governance structure of ITSCI is clear to the ITRI members at different levels and accepted by the operators when they sign the agreement with ITRI when opting in the ITSCI tracking system. Thus no major risk of ITSCI incompliance with this ICGLR standard exist.

#### Met Trak

The risk for mining companies and operators of sensitive data production to be unduly shared with direct competitors is the greatest reserve for them in adopting Met Trak. Thus, according to some of the interviewed stakeholders, Met Trak would hardly be adopted as an industry certification standard if the issue of data governance and protection were not addressed (MSA interview, 28-02-2013; PACT interview, 26-02-2013)

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.11 |  | Compliant. |
|--|--|------------|

### Recommendations:

#### ITSCI

ITSCI should promptly inform the ICGLR of any change in its governance structure.

#### Met Trak

Met Trak shall develop a data protection policy, engage with the companies using its system to ensure protection of data and communicate the list of the persons authorised to access data through the subscriber authentication procedure to the IGLCR and the companies as well.

### 2.3.6 ICGLR Standard 4.12 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance

*The system is open to inspection to independent audits by Third Party Auditors.*

Rutongo chain of custody was audited by a number of third parties including Channel research, CTC, the Rwandan Revenue Authority and others.

<sup>16</sup> ITSCI Membership Programme Agreement, Article 9.2: *The Full Members may apply to the Secretariat for information on any other Member in the Programme that they plan to trade with. The Full Member requesting the information must submit a letter of request jointly with the Member to whom the information relates, whereby both parties jointly agree to the information being shared by the Secretariat.*

**ITSCI**

The ITSCI system at Rutongo has been successfully audited by Channel research on 12-04-2012-

**Met Trak**

The Met Trak system has not yet been audited by an independent auditor.

**Risks in the process and tracking system**

The company has been subject to an increased number of audits, evaluations, assessments and research projects from different parties interested in the chain of custody process. This has brought both an increase in the audit costs to the company and in general an audit fatigue since Rutongo officers are often diverted from their normal activities to attend the auditors.

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.12 |  | Compliant. |
|--|--|------------|

**Recommendations:**

MoUs should be agreed upon by the different parties interested in auditing the chain of custody to mutually agree each other audits and eventually produce a standard audit template that can cover all the main aspects. The ICGLR should take a proactive role in bringing forward this integration and coordination of audits.

**2.3.7 ICGLR Standard 4.13 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system has to submit to independent audits by the ICGLR Independent Mineral Chain Auditor.*

Rutongo management, officers and employees have been fully cooperative with the Auditor, providing free and unhindered access to every documentation, procedure and installation within the concession's premises. They facilitated the visit and provided timely response to all the requests of the Auditor

**ITSCI**

The ITSCI officers have been open and cooperative during the visit of the ICGLR-mandated auditor, granting access to all the documents (tags, logbooks, drafts) they had.

**Met Trak**

Met Trak operators have been open and cooperative during the visit of the ICGLR-mandated auditor, granting access to the terminals (at mine site and Upgrading Plant) and control room.

**Risks in the process and tracking system**

The same risks identified in the previous section regarding increasing audit costs and "audit fatigue" fully apply to this standard as well.

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.13 |  | Compliant. |
|--|--|------------|

**Recommendations:**

The ICGLR audit committee and the GMD should take a proactive role in coordinating ICGLR audits with existing third party ones to prevent the multiplication of audits with similar standards and procedures.

**2.3.8 ICGLR Standard 4.14 - Chain of Custody 1: Rutongo Mines to Phoenix Metal Export compliance**

*The system has a governance and risk management system installed.*

**ITSCI**

Actually, sub-contracted mines are free to move from one vein to the other (from a vein leader to the other) without notifying the ITSCI officer. The reduction or increase of miners active in a vein is not reported in the ITSCI logbook, while the daily variation of the production is. As reported by the PACT Programme Manager (interviewed on 26-02-2013) a sudden variation of the production at a mine pit registered by the ITSCI central database (Maximo) can generate an incident report from the ITRI Hq in London and request an investigation.

Upon starting shifts the security guards have go to their team leader (at the end of the shift they are controlled). They all have only one entry and exit point and they have to sign an attendance registry.

**Met Trak**

At Nyamiumba, where the Met Trak system is installed, a scanner reads the employees Identification and transmits data in real time to the control room. This system ensures compliance with the indicators 4.6.2 and 6.3 of the ICGLR regarding forced and child labor as it tracks the amount of time that every miner spends in a tunnel and that he is of the minimum legal age to work.

**Risks in the process and tracking system**

**ITSCI**

ITSCI cannot ensure a solid chain of custody tracking with its current manpower. The 4 ITSCI officers cannot by definition simultaneously monitor 40 tunnels and 11 tagging stations.

**Met Trak**

The risk management structure of Met Trak is reasonably resilient to ensure a solid chain of custody tracking.

|  |  |                      |
|--|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.14 |  | Partially compliant. |
|--|--|----------------------|

**Recommendations:**

**ITSCI**

ITSCI should have a structure that reacts rapidly to changes in the Rutongo tunnels production due to changes in personnel at work. This could be done by instructing the ITSCI officers to ask for a list of workers active at each tunnel and share it with the PACT office in Kigali that can then link variation in the production with the variation of manpower.

**Met Trak**

The risk management structure of Met Trak is reasonably solid and does not require structural improvements or corrective actions.

### 3. Assessment of Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export

#### 3.1. Eurotrade Nyakabingo

Nyakabingo is a semi-industrial Wolframite (WO<sub>3</sub>) mine operated by Eurotrade S.a.r.l., a Rwandan company and subsidiary of Tinco (operator of the Rutongo Mines). Nyakabingo is located in the Rulindo District accessible via the Kigali- Gisenyi main road in the Shyorongi Sector, 15 Km away from Kigali. The mine's offices are immediately off the main asphalt road, while the mining tunnels are at a lower level down the flank of the hill. There is a single access road from the entry of the concession to the mining tunnels, which is clearly marked and maintained.

The concession has 11 active tunnels and employs 679 people, including miners, support services and Eurotrade personnel. All positions not held by Eurotrade employees (such as miners, casual workers and security) are subcontracted to the local cooperative Koanya. Its official engagement with Eurotrade will start on 1 March 2013, subject to a 3-months trial period at the end of which the contract will be extended on a yearly basis.

The mine currently operates only by manual selection of the wolframite rocks, thus recovering 15% of the content<sup>17</sup>.

##### 3.1.1. Description of the Chain of Custody

###### Step 1: Mining and supplying

Workers at Nyakabingo concession have to enter through the main gate, where they are physically searched by the mine security guards to make sure they are not smuggling any wolframite from external sites into the mine. Before being allowed access to the tunnels, workers have to leave their identification document (National ID, driving license or other) and sign an attendance sheet at a centralised point along the route. Identification documents and attendance sheet are collected and registered in separate piles per each of the 11 tunnels.



Workers are then issued personal protective equipment (PPE – blue working suits with “Eurotrade” label on the back, helmets, boots, gloves and lamps) at another office. According to the mine manager, no worker is allowed to proceed below the PPE delivery point without his or her equipment. During the visit, all workers observed wore PPEs.

Security guards at Nyakabingo mine do not guard fixed points, but patrol the entire mine appearing randomly at each site. The mine manager maintains that this kind of patrol is efficient, as it does not develop a routine that can be studied and circumvented by malicious miners.

<sup>17</sup> Eurotrade plans to build a crushing plant at the mine, once the technical conditions (electricity) are available, which will allow recovering 65-70% of WO<sub>3</sub> from the rocks.



Miners perform the collection and separation of the wolframite in the tunnels, under the supervision of co-op leaders.

### Step 2: Weighing and tagging

A single weighing and tagging station, situated atop the mine tunnels, collects the production of the entire mine. Miners start bringing their production at the end of the turn, from 3 PM onwards. Having a single weighing station allows the GMD Tag Manager to oversee the entire weighing process, which he records in the ITSCI logbook.

A Nyakabingo officer and the tunnels co-op leaders are also present at the weighing operation, each one recording the per capita production on a notebook. The individual consignments are then mixed in 50-60 kg bags, labelled with the co-op leader's name. "RW Mine" ITSCI mine tags are then affixed on the bags by the GMD Tag Manager.

Once the weighing and tagging finished, miners are physically inspected by the mine's security officers (see picture). The miners then return to the PPE store, where two Nyakabingo officers (one in charge of reporting 6 tunnels and on 5) duly report all the details of the production (materials used, holes drilled, men at work, production) in an internal logbook (see picture) that is then brought to the mine manager. This allows to internally track the production and to react if some sudden change in one of the parameters (eg relations between holes drilled and production) happens.



### Step 3: Transport to Upgrading Plant

After weighing and tagging, the mineral bags are loaded in a car and escorted by the mine's security to the Upgrading Plant.

No information on transport is registered on the mine's logbooks.

### Step 4: Upgrading plant, weighing and Négociant tagging

At the Upgrading Plant the mineral bags are weighed again, and the "RW Mine" tags are recorded in the ITSCI logbook by the GMD Tag Manager.

As tagged production coming from the mine reaches the Upgrading Plant after 5 PM, it is stored there overnight before being weighed again and processed the following day. The bags are then mixed and undertake several processing cycles (usually 3-4) to recover 68 to 72% WO<sub>3</sub> from the wolframite at 70-71% grade (as assessed by the Alex Stewart laboratory).

The processed wolframite receives a Négociant tag and is registered in the ITSCI logbook.

### Step 5: Storage and transport to exporter's premises

The processed minerals are stored at the Upgrading Plant for several days as transports to Kigali occur once a week (on Thursdays).

The consignments are loaded on 5-tonne trucks and transported to the exporter's (Mineral Supply Africa, MSA) premises in Kigali after issuance of a delivery slip recording:

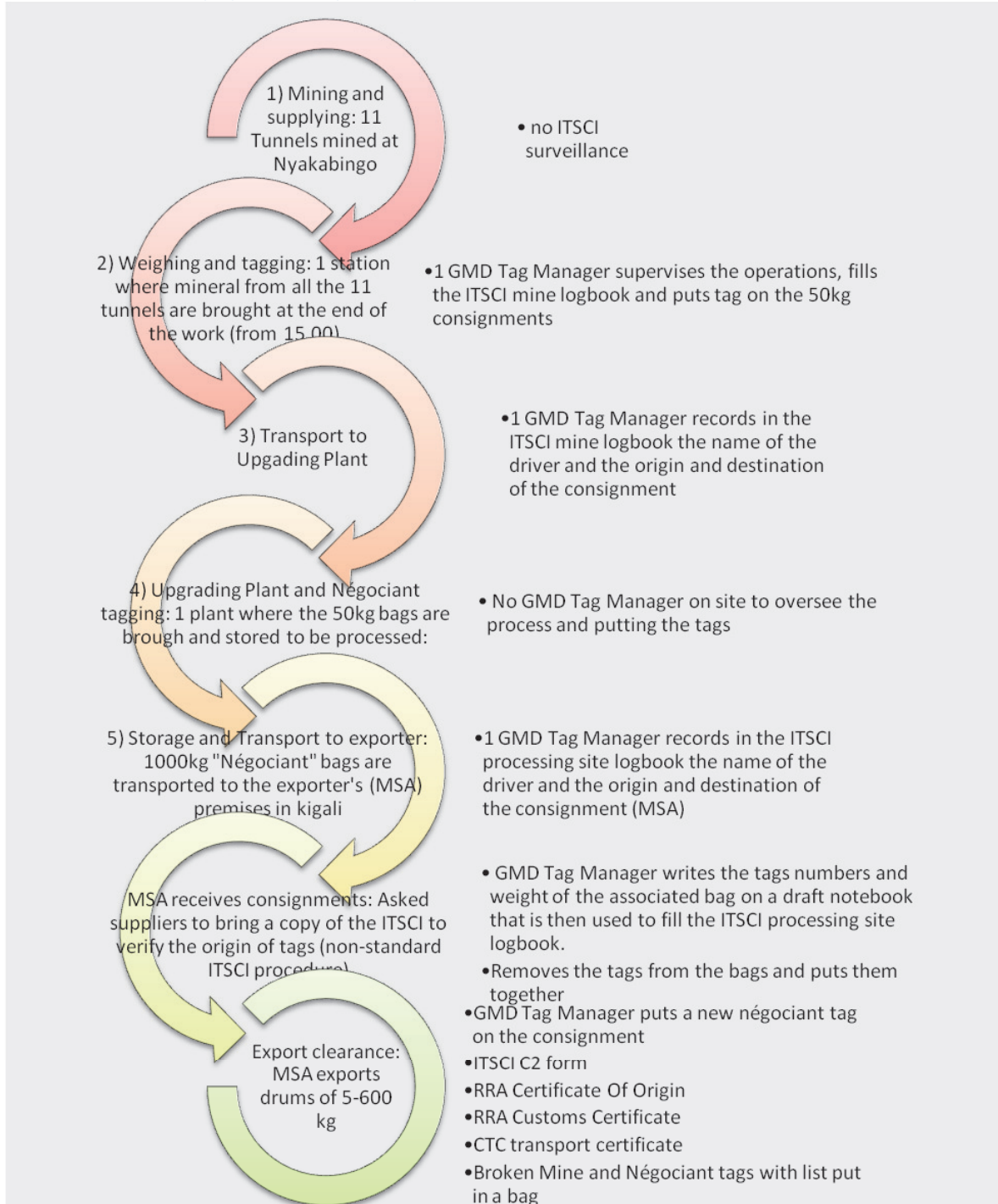
- the destination (MSA in Kigali)
- the weigh of the consignment
- the data of the transport: name of the transporter, date and vehicle plate number).

The mine Operations Manager then notifies the exporter of the time the truck leaves the mine premises.

Once the material reaches the exporter’s premises in Kigali, MSA issues an “entry in stock” voucher to Eurotrade, acknowledging successful delivery. The voucher reports the date, time of departure and arrival of the truck, the number of bags in the lot and the weigh (gross and net).

3.1.2. Description of the Traceability System in place

The ITSCI Traceability System at Nyakabingo



Step 1: Mining and supplying

Nyakabingo has adopted the ITSCI traceability system to track its Chain of Custody. The system does not have agents deployed to ensure the tracking on the consignments from the tunnels of origin to the weighing and tagging stations. The system tracks the mineral bags from the weighing and tagging station onwards. The integrity of the chain of custody from the mine pits to the weighing station is ensured by the miners and their co-op leaders, as well as by the mine security guards who patrol the concession.

Step 2: Weighing and tagging

The GMD Tag Manager at the single weighing and tagging station oversees the operation:

- When miners arrive, he records the name of the miner and the weight of the consignment on the ITSCI logbook.
- The individual bags are then put in a 50kg bag for tagging.
- He then seals the 50kg bag with a “RW Mine” tag.
- He then records the name of the co-op leader on the 50kg bag, the name of the buyer (Eurotrade), the price and grade of the mineral.

As there is a single station for the entire mine, the GMD Tag Manager oversees all weighing and tagging processes.

Step 3: Transport to Upgrading Plant

The GMD Tag Manager records in the ITSCI logbook (see picture) a description of the vehicle used to transport the tagged bags from the weighing and tagging station to the Upgrading Plant store.

The image shows an ITSCI logbook for 'MINE SITE PRODUCTION: RWANDA'. It contains a table with columns for DATE, TIME, MINE TAG NUMBER, MINER, CO-OP OR LEADER, WEIGHT (KG), BUYER, PRICE (RWF), APPROX. CONC. %, TRANSPORT ROUTE, TRANSPORT METHOD, NAME OF TRANSPORTER, and NOTES. The table is filled with handwritten entries. At the bottom, there are sections for 'CHECKED AND APPROVED BY GMD REPRESENTATIVE' (Name: MURIRE J. DANIEL, Position: C.M.D.), 'CHECKED AND APPROVED BY MINE REPRESENTATIVE' (Name: DE. PRO. BAHIRWA, Position: MINE REPRESENTATIVE), and 'SECURITY PROVIDED BY' (Name: E.T.I.).

Step 4: Upgrading plant, weighing and Négociant tagging

According to the Manager of Nyakabingo mine, an ITSCI officer is permanently assigned at the Upgrading Plant. However, at the time of the visit he was not present.

Step 5: Storage and Transport to exporter’s premises

The ITSCI officer reports on the ITSCI processing site logbook the transport route from point of origin (Upgrading Plant) to destination (MSA in Kigali), method of transport and name of the transporter.

### 3.2. Mineral Supply Africa (MSA)

Mineral Supply Africa (MSA) is a Rwandese company, subsidiary of the Swiss company Cronimet Central Africa AG. Until the enforcement of the tagging system in Rwanda in March 2011, MSA was one of the biggest importers of tin, tantalum and tungsten from the eastern DRC, but has since then suspended its supplies of minerals from countries or producers that do not provide adequate mine tags. MSA exports mineral containers through the Tanzanian port of Dar es Salaam.

#### 3.2.1. Description of the Chain of Custody

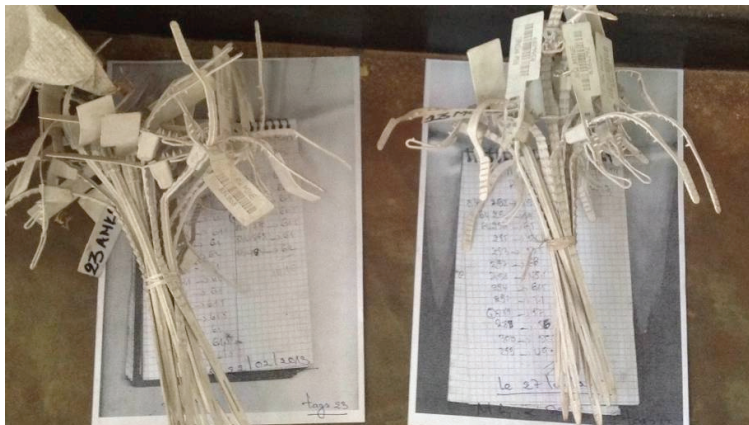
##### Step 1 - receiving consignments:

MSA receives consignments both from mines and processing sites, and has established long-term relations with most of its suppliers. New producers or processors who want to supply to MSA undertake a due diligence review from the company’s geologists that assess that their production is in line with the capacity of the site.

Suppliers are also required to bring a copy of the ITSCI mine or processing site logbook with them, to allow MSA cross-checking the tags put on the bags with the information on the ITSCI logbook. Once consignments are admitted into the MSA premises, the store manager issues the supplier an entry in stock voucher that specifies the date and time of the consignment, the total weigh and number of bags, the name of the supplier, the type of mineral supplied and MSA internal lot tracking number (see picture).

2 GMD Tag Managers are permanently assigned to MSA premises to oversee operations. When a consignment is received, the GMD Tag Manager writes the tags numbers and weight of the associated bag on a draft notebook that is then used to fill the ITSCI processing site logbook. He then removes the tags from the bags and puts them together (see picture).

| DESCRIPTION | GROSS WEIGHT | QUANTITY OF BAGS | NET WEIGHT | LOT NUMBER |
|-------------|--------------|------------------|------------|------------|
| tin         | 46.2 kg      | 2                | 46.2 kg    |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |
|             |              |                  |            |            |



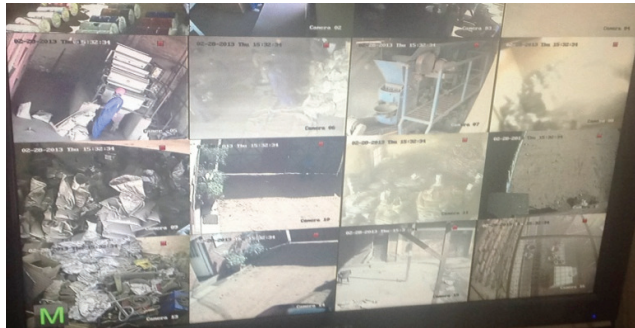
Mineral consignments are received in an open space under the surveillance of CCTV cameras. If a backlog in the processing does not allow for the consignments to be immediately treated, they are locked in a storeroom.

### Step 2 - MSA Processing:

Before processing the mineral consignments are sampled and assayed to determine the grade. The assay is made by MSA's internal laboratory and by the Alex Stewart international independent laboratory. Results are usually ready in five hours.

Once the assay results ready, the negotiation on the buying price between the supplier and MSA starts. This can lead to three cases:

1. The minerals are bought by MSA. MSA has no limits for payments in cash to the suppliers (which puts it at risk of in compliance with the ICGLR Appendix 5 standard 3<sup>18</sup>). Until the negotiation completed the mineral consignments are stored at MSA storeroom, monitored by CCTV cameras (see picture).
2. MSA and the supplier do not reach an agreement on the price. In that case the supplier pays to MSA the cost of the assay but keeps the results and the material.
3. The assay results reveal that the grade of the consignment is too low for MSA standards. In that case the supplier keeps the mineral and MSA pays for the costs of the assay.



### Step 3 - Négociant processing:

Minerals that are bought are upgraded at MSA, if needed. If the consignments are supplied by a processing site and do not require further upgrading (as is the case for the wolfram concentrate supplied by Eurotrade), the RW Négociant tag is just removed and stored by the GMD Tag Manager and a new MSA RW Négociant tag is put.

The processed and tagged mineral bags are put in 50 kg bags (for ease of handling) and brought to the store where they await clearing for exports.

### Step 4 - export clearance:

<sup>18</sup> ICGLR Mineral certification manual Appendix 5 "Standards for Export of Minerals from Certified Mine Sites" standard 3 states "Avoid cash purchases whenever possible".

Once a processed consignment is ready to be exported, it is taken out of the storeroom. The MSA RW Négociant tags are removed and stored by the GMD Tag Manager to be shipped to the final client.

The bags are then weighed again by the GMD Tag Manager to verify the integrity of the processed consignment. The individual bags are blended in drums (containing 5-600 kg) under supervision by agents of the Alex Stewart laboratory, who fill a weighing, sampling and packing certificate and a container inspection certificate (see picture). The drums cover display the MSA shipping number, drum number in the export lot (x of y) and weigh (gross, tare and net).



The required documents for export clearance by the Rwandan authorities (RRA Certificate of origin and Customs declaration documents, CTC transport document by SDV and the ITSCI C2 form and Exporters receipt logbook) are then filled.

#### Step 5 – storage and transport:

Once all the documents required for export are duly filled and approved, the 24 tonnes container with the drums is closed and sealed with 4 seals (1 from the Rwandan Customs, 2 from Alex Stewart and 1 from the transporter, SDV). MSA can ship on average 1 to 2 containers (24-48 tonnes) of coltan and between 8 and 12 containers (roughly 250 tonnes) of wolfram and tin concentrates per month.

### 3.2.2. Description of the chain of custody tracking system in place

#### The ITSCI Traceability System at MSA

##### Step 1: Mining and supplying

As the ITSCI system does not provide for a copy of the mine or processing site logbooks to be sent to the exporters, MSA has asked to its suppliers to provide a photocopy of their logbooks to be able to track the production back to the origin.

##### Step 2: Weighing and tagging

The weighing of the consignment and the removal of the GMD tags is made under the supervision of the ITSCI officer (GMD Tag Manager), who also keeps the removed tags. It has to be noted that the ITSCI officer authorises cutting the tags on the consignments only after verification of the information provided in the copy of the ITSCI logbook provided by the supplier. If the information on the ITSCI logbook and the tag numbers on the bags are consistent, the ITSCI officer allows the removal of the tags. Otherwise the bags are left tagged and sealed in the MSA storeroom until the discrepancy is investigated.

The ITSCI officer only fills the number of tags in the processing site logbook for MSA when the company agrees on the buying terms with the supplier. This can take up to one week after the consignment is received at MSA premises. In the meantime, tag numbers and weights are recorded in notebooks and kept with the broken tags.

**Step 3: Transport to Upgrading Plant**

As the Upgrading Plant is in line of sight from the delivery area, no transport information is provided on the ITSCI processing site logbook.

**Step 4: Upgrading plant, weighing and Négociant tagging**

Once the mineral consignments are ready to receive the MSA RW Négociant tag, the ITSCI officer copies the tag numbers of the original consignment from his draft notes into the proper ITSCI processing site logbook. He then records the MSA RW Négociant tags associated with the consignment and oversees the blending of the minerals into the 5-600 kg drums for export.

**Step 5: Storage and Transport to exporter's premises**

The ITSCI officer saves all the broken RW Mine and RW Négociant tags with a list of the tags, to be sent along with the shipment of minerals.

The ITSCI officer then fills the export receipts logbook with:

- The mineral exported
- The name of the exporter (MSA) and of the trader (Cronimet)
- The list of Eurotrade RW Négociant tags and the weigh of each lot
- The ITSCI shipping code and
- The type of transport from the MSA premises (but without the destination).

**EXPORTERS RECEIPTS: RWANDA**  
 Copy 1 (white) For ITSCI  
 Copy 2 (yellow) For exporter  
 Copy 3 (blue) For RRA  
 Copy 4 (pink) For GMD

Exporter: **MSA RWPE 000**  
 Trader 1: **CRONIMET CENTRAL**  
 Trader 2:  
 Smelter:

Mineral: **CASSITERITE**  
 RW: **2003498**  
 EMAIL: **itsciprojectrw@gmail.com**  
 TEL: **+250 788301482 (GMD)**  
**+250 784111245 (ITSCI)**

**ITSCI**

| DATE | TIME | SUPPLIER TAG NUMBER / ITSCI SHIPMENT N° / CERT. / ORIGIN N° | SUPPLIER      | WEIGHT IN (KG) | PRICE \$/kg | APPROX CONC % | NOTES |
|------|------|---|---------------|----------------|-------------|---------------|-------|
|      |      | 4385501   | KUAKA         | 213.3          |             |               |       |
|      |      | 8385502   | SENGATI JOHN  | 50.8           |             |               |       |
|      |      | 8385503   | CRYSTAL       | 164.3          |             |               |       |
|      |      | 8385504   | LOEMEKI       | 21.4           |             |               |       |
|      |      | 8385505   | CRYSTAL       | 28.4           |             |               |       |
|      |      | 8385506   | SELCOCGE      | 166.8          |             |               |       |
|      |      | 8385507   | KUAKA         | 84.5           |             |               |       |
|      |      | 8385508   | KAMIRO        | 40.3           |             |               |       |
|      |      | 8385509   | COMIKABA      | 86.6           |             |               |       |
|      |      | 8385510   | MUNJABARENA   | 137.9          |             |               |       |
|      |      | 8385511   | VIMICO        | 22.5           |             |               |       |
|      |      | 8385512   | COMIKABA      | 93.8           |             |               |       |
|      |      | 8385513   | NINIGENA      | 249.4          |             |               |       |
|      |      | 8385514   | NEWLINE       | 125.4          |             |               |       |
|      |      | 8385515   | IUHAGERE      | 7.4            |             |               |       |
|      |      | 8385516   | KUAKA         | 1210.4         |             |               |       |
|      |      | 8385517   | ALML          | 134.3          |             |               |       |
|      |      | 8385518   | HAYILLA       | 2.58           |             |               |       |
|      |      | 8385519   | COMIKABA      | 60.7           |             |               |       |
|      |      | 8385520   | NKS           | 1933.1         |             |               |       |
|      |      | 8385521   | ALFA MINERAL  | 51.30          |             |               |       |
|      |      | 8385522   | SPT           | 2.15           |             |               |       |
|      |      | 8385523   | HAYILLA       | 245.7          |             |               |       |
|      |      | 8385524   | ETS SINDABINE | 562.6          |             |               |       |
|      |      | 8385525   | SELCOCGE      | 122.3          |             |               |       |
|      |      | 8385526   | BATMOS        | 22.5           |             |               |       |
|      |      | 8385527   | VE MICO       | 1169.8         |             |               |       |
|      |      | 8385528   | COMINSA       | 686.8          |             |               |       |

Transport Route to port:  
 Transport method:  Vehicle /  Airplane /  Train /  Boat /  Other (Please list):  
 Name of transporter:  
 Name of port:  
 Total Export weight: (KG)  
 Security provided by:  
 N° of pages in this export: **112**

Checked and approved by GMD REPRESENTATIVE  
 Name: **PROCEDE**

Checked and approved by RRA REPRESENTATIVE  
 Name: **PROCEDE**

Checked and approved by EXPORTER REPRESENTATIVE  
 Name: **PROCEDE**

### 3.3. Assessment of Compliance of Chain of Custody 2

#### 3.3.1. ICGLR Standard 4.6 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*Mineral consignments only originate from mine sites defined as Certified according to ICGLR standards. (Explanatory note: “Certified”, for the purpose of this evaluation, shall include both green- and yellow-flagged mine sites in Rwanda. It explicitly excludes any red-flagged mine sites).*

Nyakabingo mineral concession has been inspected on June 2012 and certified as a “Green Flag” site, since it met the standard requirements of the OECD Due Diligence Guidelines and the additional ICGLR standards in terms of working conditions, human rights and environmental impact.

Co-op managers and mine security personnel are responsible for ensuring that the mineral consignments from the Nyakabingo mine tunnels are not mixed with material of unknown or foreign origin.

#### ITSCI

The chain of custody at Nyakabingo is highly centralised, as a single weighing and tagging station collects all the production from the 11 mine tunnels. The material is then sent to the single processing site, the Upgrading Plant. This allows the ITSCI officers (GMD Tag Managers) assigned at Nyakabingo to oversee personally all operations at these steps of the chain of custody. Nyakabingo has been assigned RW Mine tags starting with 8347 and Négociant tags starting with 8037

#### Risks in the process and tracking system

Although the Nyakabingo concession is certified as a “green” mine under the ICGLR mechanism at the time of this review, there is currently no mechanism in place at MSA to ensure mineral consignments are systematically sourced from ICGLR certified mine sites.

From the 11 mine tunnels to the weighing and tagging station, the ITSCI system does not trace the minerals. Processed minerals are stored at the Upgrading Plant for several days, as transport to Kigali is organised once a week, on Thursdays. This could leave the consignments potentially exposed to manipulation<sup>19</sup>.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.6 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

It is recommended for MSA to formally commit to and establish the necessary internal procedures to ensure minerals are purchased from ICGLR certified mines.

The risks of mineral “infiltration” from other sites into the Nyakabingo chain of custody, identified above, are mitigated only by the mine’s security personnel. Installing surveillance cameras to monitor activity at the

<sup>19</sup> A manipulation would of course have to take care not to spoil the RW Négociant tags. An example could be by cutting the bags to exchange the content and seam them again, since the tags are carefully checked but the physical integrity of the bags is not.



Upgrading Plant will reduce the risks of consignment manipulation during the mine closing hours. The Nyakabingo management favourably accepted the suggestion.

#### 4.3.2 ICGLR Standard 4.7 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*Mineral consignments from Certified mine sites are fully traceable through their accompanying documentation from the mine of origin up to the point of export.*

The internal system used by Eurotrade to track its production records the mine production.

#### ITSCI

Documentation from the ITSCI tracking system at Nyakabingo allows for consignments to be traceable from the tagging point (but NOT from the pit of origin) through the processing phase (where “RW Négociant” tags are put and registered) to the point of export.

#### Risks in the process and tracking system

The ITSCI logbooks allow to track the origin of the Mine and Négociant tags all along the chain of custody. However, the ITSCI logbooks have not been designed to produce a copy that is transmitted to the following operator of the chain to allow for cross-check and verification of the tags. This makes verification of the origin of the tags by the consignees of tagged minerals impossible.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.7 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

ITSCI logbooks should allow for the information to flow along the chain of custody and not only to be routed through ITRI. This would be possible by producing a fourth copy of the mine and processing site logbooks that flows together with the consignments along the chain of custody steps.

#### 4.3.3 ICGLR Standard 4.8 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*Mineral consignments from Certified mine sites are fully physically separated from mineral consignments from other sites, from the mine site to the point of export. Mineral consignments from different Certified mine site may be physically mixed provided the relative proportions of minerals from different certified mines of origin remain traceable.*

#### ITSCI

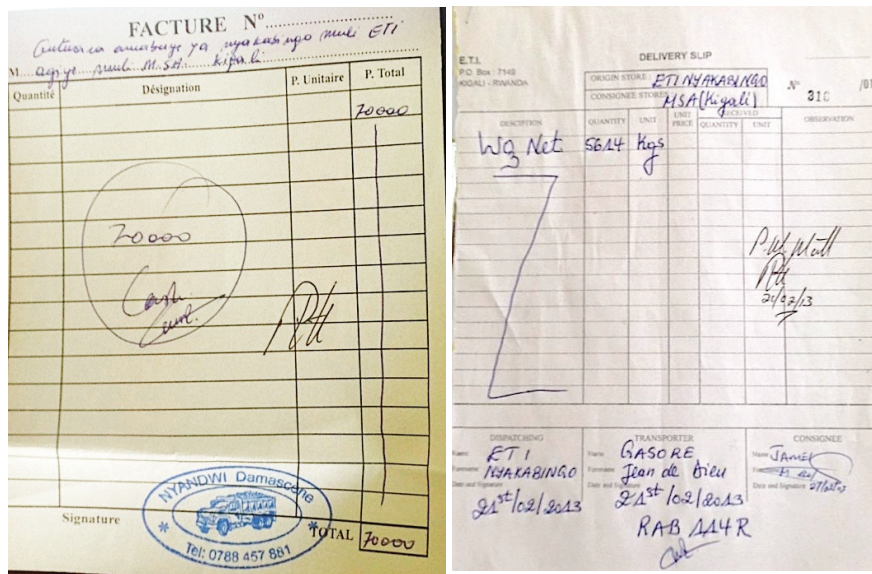
Nyakabingo is considered a unique “mine site” in the ITSCI code attribution (and in ICGLR’s as well) and thus does not mix consignments from different mine sites. Furthermore, consignments arriving at the Upgrading Plant come from the single weighing and tagging station of the mine, thus creating an automatic correspondence between the two steps of the chain of custody.

Nyakabingo’s internal chain of custody tracking and reporting procedures make the production of the mine reasonably resilient to contamination from minerals of other origin. Moreover, according to the cross-

referenced declaration collected from miners, security guards and Eurotrade management during the visit (on 25-02-2013) smuggling of wolframite would be *de facto* discouraged by two factors:

- Given the low value to mass ratio of wolframite, smuggling is mainly viable in big quantities, which will create rumours in the community and attract the attention of security guards and mine management
- Each tunnel has been sampled by BGR to define the mine’s unique footprint. Each mineral consignment from Nyakabingo is sampled by the exporter’s laboratory (MSA) and by the independent laboratory Alex Stewart. If an alert on a possible contaminated shipment from Nyakabingo should be raised (by ITRI, GMD or the ICGLR), crosschecking the sampled consignments at MSA and Alex Stewart with the fingerprint of BGR will reveal the fraud. Since this kind of incident has not yet occurred with consignments originating from Nyakabingo, the costs, effectiveness and feasibility of this procedure have not yet been verified.

Every Thursday, mineral consignments from Nyakabingo are transported in 5-tonnes trucks to the exporter’s (MSA) premises in Kigali, escorted by Nyakabingo’s Ops Manager in a separate vehicle. The transporter company has been selected through a competitive process and issues a receipt per each shipment that is kept in Nyakabingo’s records (see picture).



**Risks in the process and tracking system**

There are currently no procedures in place at MSA to ensure mineral consignments from ICGLR certified mines are physically segregated from those originating in non-ICGLR certified mines. Although the Nyakabingo concession is ICGLR certified at the time of this review, MSA may purchase tagged mineral consignments from other concession that have not yet successfully undergone a ICGLR mine inspection.

**ITSCI**

The risks in the chain of custody at Nyakabingo come from the lack of ITSCI surveillance of the first step of the chain of custody (from mine pit to the weighing and tagging station) and from the poor performance of the ITSCI officer at the Nyakabingo Upgrading Plant.

There is little risk of manipulation of the Nyakabingo consignment during the transport from the mine to the processor premises, due to the short distance (Nyakabingo is less than one hour away from Kigali) and the traffic on the main road. Any manipulation would only be possible with the connivance of the transporter and the mine’s Ops Manager. Furthermore departure and arrival times are reported to the mine’s management and therefore any delay in the transport will be noticed by either the mine or the exporter’s management.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.8 |  | Partially compliant. |
|---|--|----------------------|

**Recommendations:**

It is recommended for MSA to commit to as well as establish a procedure to ensure physical segregation of ICGLR certified mineral consignments from non-ICGLR certified consignments throughout transportation, handling, storage and processing.

Installing surveillance cameras to monitor activity at the Upgrading Plant will reduce the risks of consignment manipulation during the mine closing hours. The Nyakabingo management favourably accepted the suggestion.

#### 4.3.4 ICGLR Standard 4.9 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*The supply chain of mineral consignments is conflict free. For the purpose of the ICGLR Tracking and Certification Scheme, 'conflict free' means that none of the actors in the mineral chain contribute at any time, through the extraction, transport, trade, handling or export of minerals, to any direct or indirect support to non-state armed groups or public or private security forces engaged in illegal activity and/or serious human rights abuse. Direct or indirect support" to non-state armed groups or public or private security forces through the extraction, transport, trade, handling or export of minerals includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces or their affiliates who:*

*4.9.1 illegally control mine sites or otherwise control transportation routes, points where minerals are traded and upstream actors in the supply chain; and/or 4.9.2 illegally tax or extort money or minerals at points of access to mine sites, along transportation routes or at points where minerals are traded; and/or 4.9.3 illegally tax or extort money or mineral shares from mine site owners, mine site operators, intermediaries, traders, export companies, or any other actors in the upstream chain of custody.*

**ITSCI**

The ITSCI mine and processing site logbooks are not transmitted to the following step of the chain of custody (eg from comptoir to exporter) but only vertically to GMD and ITSCI.

**Risks in the process and tracking system**

The information of supplier is considered by MSA (and by many participants in the ITSCI scheme as well) a secret that should not be disclosed to the actors of a given chain of custody, especially to the final receiver of the mineral consignments. This, combined with the absence of a clear identification of the site of origin in the RW Mine and Négociant tag makes impossible for the exporters to know the origin of the consignments putting at risk the conflict-free origin of minerals to the final user.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.9 |  | Partially compliant. |
|---|--|----------------------|

**Recommendations:**

To solve this problem, MSA (and Phoenix Metals) have asked suppliers to bring with them copies of the ITSCI mine and processing site logbooks that bring clear identification of the mine of origin, the producers, transporters and processing site. This allows for a horizontal verification of the origin of the consignments

that would otherwise be impossible in the standard ITSCI chain of transmission. ITSCI should update its mine and processing site logbooks to include a fourth copy for the immediate receiver of the mineral consignments.

#### 4.3.5 ICGLR Standard 4.10 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*Tracking data from the mineral chain and the Chain of Custody tracking system are transmitted to the ICGLR Secretariat. The data from the Chain of Custody system shall be transmitted to the ICGLR Secretariat in full, in its unprocessed state. The data shall not be redacted, aggregated, grouped, or otherwise processed in any way that might serve to hide, disguise, obscure or otherwise impede the ability of the ICGLR Secretariat to have full access to every particular of every parcel, lot or shipment of Designated Minerals.*

Nyakabingo sends its aggregated production statistics to the GMD as well as information on taxes paid to the RRA and general statistics to the National Institute of Statistics. The disaggregated data submitted by Eurotrade consist of the ITSCI mine and processing site logbooks copies for the GMD.

#### Risks in the chain of custody

Only aggregated data are transmitted by Eurotrade to the ICGLR through the GMD. The mine produces high volumes of disaggregated data but this are currently used for internal tracking and strategic development purposes.

|  |  |                      |
|--|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.10 |  | Partially compliant. |
|--|--|----------------------|

#### Recommendations to address gaps

The Ministry of Mines should organize a proper sensitization campaign to all the stakeholders in the mining sector to disseminate the obligation of sharing information with the ICGLR. It could provide assistance in an initial phase, such as by providing a standard reporting tool to all of the stakeholders.

#### 4.3.6 ICGLR Standard 4.11 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*The system is transparent in its documentation and decision making structures. The existence and status of all participants in the ICGLR Mineral Tracking and Certification System (including but not limited to mine operators, traders, processors, comptoirs and smelters) shall be publicly disclosed, along with any ICGLR administrative reports or audits pertaining to that status. The decisions of the ICGLR Secretariat and Committees must be publicly disclosed, along with the underlying documentation supporting those decisions.*

#### ITSCI

Eurotrade has signed into the ITSCI membership programme on the 5<sup>th</sup> of May 2011, thus accepting that data exchange between the company and ITSCI are treated under the ITSCI “Confidentiality and data handling” policy. Every request to access these data from a third party shall be notified to Eurotrade and addressed to the ITRI secretariat in London.

#### Risks in the process and tracking system

**ITSCI**

The governance structure of ITSCI is clear to the ITRI members at different levels and accepted by the operators when they sign the agreement with ITRI when opting in the ITSCI tracking system. Thus no major risk of ITSCI incompliance with this ICGLR standard exist.

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.11 |  | Compliant. |
|--|--|------------|

**Recommendations:****ITSCI**

ITSCI should promptly inform the ICGLR of any change in its governance structure.

#### 4.3.7 ICGLR Standard 4.12 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*The system is open to inspection to independent audits by Third Party Auditors.*

Nyakabingo was audited by a number of third parties including Channel research, CTC, the Rwandan Revenue Authority and others.

**ITSCI**

The ITSCI system at Nyakabingo has been successfully assessed by Channel Research on June 2011.

Nyakabingo was also audited by a number of third parties including Channel research, CTC (7-11 June 2011), the Rwandan Revenue Authority and others.

**Risks in the process and tracking system**

The company has been subject to an increased number of audits from different parties interested in the chain of custody process. This has brought both an increase in the audit costs to the company and in general an audit fatigue since Eurotrade officers are often diverted fro their normal activities to attend the auditors.

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.12 |  | Compliant. |
|--|--|------------|

**Recommendations:**

MoUs should be agreed upon by the different parties interested in auditing the chain of custody to mutually agree each other audits and eventually produce a standard audit template that can cover all the main aspects. The ICGLR should take a proactive role in bringing forward this integration and coordination of audits.

#### 4.3.8 ICGLR Standard 4.13 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*The system has to submit to independent audits by the ICGLR Independent Mineral Chain Auditor.*

Eurotrade and MSA management, officers and employees have been fully cooperative with the Auditor, providing free and unhindered access to every documentation, procedure and installation within the

concession's premises. They facilitated the visit and provided timely response to all the requests of the Auditor.

### ITSCI

The ITSCI officers have been open and cooperative during the visit of the ICGLR-mandated auditor, granting access to all the documents (tags, logbooks, drafts) they had.

Nyakabingo management, officers and employees have been fully cooperative with the Auditor, providing free and unhindered access to every documentation, procedure and installation within the concession's premises. They facilitated the visit and provided timely response to all the requests of the Auditor.

### Risks in the process and tracking system

None, but the audit fatigue deriving from the multiplication of standards (ITSCI, ICGLR, CTC) and the consequent rising audit costs the company will have to bear might cause its disengagement from a possible ICGLR certification mechanism, if not properly managed.

|  |  |            |
|--|--|------------|
| Assessment of compliance vs. ICGLR Standard 4.13 |  | Compliant. |
|--|--|------------|

### Recommendations:

ICGLR should cooperate with existing audit mechanisms to avoid the company's audit fatigue. This will be particularly valid for ASM or small companies that have less capital flow to bear rising audit costs.

#### 4.3.9 ICGLR Standard 4.14 - Chain of Custody 2: Eurotrade Nyakabingo concession to Mineral Supplies Africa Export compliance

*The system has a governance and risk management system installed.*

### ITSCI

Eurotrade submits incident regarding the tagging system using the ITSCI incident report. Furthermore, the company has mine capacity and production records from 2007, which will facilitate detecting any inconsistent peak in the production. Overall, the good quality of data produced by Eurotrade for internal purposes allows for crosscheck and verification of its capacity and declared production.

### Risks in the process and tracking system

The ITSCI system at Nyakabingo does not report the absence of the operator (the GMD Tag Manager) at any of steps, such as it has been noted by the absence of the ITSCI officer at the processing centre (the Upgrading Plant). This allowed the procedure at the Nyakabingo processing centre to go without monitoring by ITSCI, which limits greatly the credibility of the information put in the logbooks. There is no reporting from the ITSCI officers at given intervals of time to ensure that they are effectively on duty.

Apart from the ITSCI incident reports, the rest of the data collected by Eurotrade are not a part of the ITSCI system but are only used for internal tracking purposes.

|  |  |                      |
|--|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.14 |  | Partially compliant. |
|--|--|----------------------|

### Recommendations:

ITSCI could improve its system by adding mechanisms to check attendance of the operators and reports their effective presence on duty at random periods of time.

## 5 Assessment of Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession

### 5.1 Wolfram Mineral Processing

Gifurwe is a semi-industrial Wolframite mine operated since 2007 by Wolfram Mineral Processing S.a.r.l, (WMP), a Rwandese company and subsidiary of Austrian Wolfram Bergbau und Hutten AG.

The mine employs 1040 to 1060 workers between contracted employees and sub-contractors. Three cooperatives from the area provide miners and supporting services. A fourth cooperative called Shabuka provides for 20 security guards. Shabuka is not a security company but an organisation providing village security. The cooperatives, which according to the mine manager are in the process of becoming established companies with a RDB number, are contracted by WFP since 2007. The workers sub-contracted through these cooperatives receive three months of training from WMP depending on the functions they are assigned to (manufacturing and use of explosives, drilling, panning...).

Every Tuesday the mine holds meetings with all staff and community leaders to disseminate its policy on working conditions, mineral traceability, ethics in working and legal obligations.

Payment of workers is made through bank transfer to ensure traceability.

WOLFRAM MINING & PROCESSING LTD  
B.P. 1856  
Tel : 0255101476/0255101479  
KIGALI- RWANDA

LISTE DE PAYS DE PRODUCTION MINERAIS DE JANVIER 2013

| N° | NOM ET PRENOM                         | MONTANTS   | NUMERO DE COMPTE | BANQUE DU BENEFICIAIRE   |
|----|---------------------------------------|------------|------------------|--------------------------|
| 1  | MPABADASHIMA FREDERIC                 | 458,944    | 00000017         | IZIYIGIHE SACCO KAMUBUGA |
| 2  | NDAGIJIMANA PROTAIS                   | 117,305    | 00002186         | IZIYIGIHE SACCO KAMUBUGA |
| 3  | NDERABAKURA MANASSE                   | 414,904    | 00000300         | IZIYIGIHE SACCO KAMUBUGA |
| 4  | NDUHIJE FABIEN                        | 450,829    | 00002191         | IZIYIGIHE SACCO KAMUBUGA |
| 5  | NTAMARENGERO J DAMASCENE              | 822,494    | 00001255         | IZIYIGIHE SACCO KAMUBUGA |
| 6  | NTAWUKURIRYAYO ATHANASIE              | 245,639    | 00002573         | IZIYIGIHE SACCO KAMUBUGA |
| 7  | RWABIGWI JUVENAL                      | 440,943    | 00002185         | IZIYIGIHE SACCO KAMUBUGA |
| 8  | SEBYATSI MELLAN                       | 273,133    | 00002189         | IZIYIGIHE SACCO KAMUBUGA |
| 9  | YATUBABARIYE J DAMASCENE              | 18,657     | 00002190         | IZIYIGIHE SACCO KAMUBUGA |
| 1  | HABIMANA REVERIEN (KOPESHA RUGENG.)   | 382,550    | 00002192         | IZIYIGIHE SACCO KAMUBUGA |
| 2  | KAYIGAMBA ETIENNE (KOPESI RUGENG.)    | 525,450    | 00002194         | IZIYIGIHE SACCO KAMUBUGA |
| 3  | MVUYEKURE J BAPTISTE (KOPEGA RUGENG.) | 6,638,500  | 00002202         | IZIYIGIHE SACCO KAMUBUGA |
| 4  | NTABARESHYA J CLAUDE (KOPESA RUGENG.) | 140,000    | 00002411         | IZIYIGIHE SACCO KAMUBUGA |
| -  | TOTAL GENERAL                         | 10,929,348 |                  |                          |

Nous disons la somme de dix millions neuf cent vingt neuf mille trois cent quarante-huit francs rwandais

A VIRER AU COMPTE COGEBANQUE N°:132-1001700 IZIYIGIHE SACCO KAMUBUGA  
Fait à Gifurwe, le 06 FEVRIER 2013

Visa de l'Administration  
W.M.P LTD  
BIFURWE

The explosives used in the mine are escorted by the Rwandan military to the entry of the concession but are then guarded only by the mine security. Gifurwe has no armed guards patrolling nor does it have police patrols inside the concession.

#### 5.1.1 Description of the Chain of Custody

Step 1: Mining and supplying



All workers enter at 7 AM from the main gate, where they are inspected by the security guards to make sure they are not trying to smuggle wolframite of alien origin into the site. They are then assembled to receive a briefing on the daily work to perform and materials to use in front of the manager officer.

Workers then sign an attendance sheet and a delivery logbook where the equipment received is recorded<sup>20</sup>. Every evening, a meeting is held for the staff before they leave the mine premises, to determine the type and quantity of equipment that they will need the following day. According to the mine manager this system *“also shows workers that there is a daily follow-up of their work, which helps building good employer-employee relations”*. The debriefing also helps keeping track of the expendables used, which are noted in a notebook.

If a miner needs to be replaced, the selection of the substitute is made by drawing into a list of available sub-contractors proposed by the cooperatives. The mine manager states *“the procedure ensures transparency and shows that the mine does not discriminate”*.

Miners work in eight tunnels and an open pit under the supervision of a co-op leader. Washing and manual extraction of wolframite from the rock is done at washing stations at the exit of each tunnel. The rate of recovery from manual operations is around 15%.

### Step 2: Weighing and tagging

Each of the nine producing site (the eight tunnels and the open pit) has a weighing and tagging station, where production is brought at the end of the washing operations (usually from 2:30 PM onwards). There is a single GMD Tag Manager in charge of attending the nine weighing and tagging stations.

At the time of the visit, the GMD Tag Manager, the co-op leaders, a mine security guard and a GMD inspector from Kigali were present to supervise the weighing and tagging operations. From the weighing and tagging stations it is possible to see both the washing stations and the tunnel exit. Once the bags are weighed, the GMD Tag Manager puts the “RW Mine” tags and compiles the ITSCI “Mine site” logbook.

### Step 3: Transport to Upgrading Plant

Bags from the weighing and tagging stations are manually transported by sub-contractors to the processing site. Tailings (waste sands) is transported by a company truck to the Recovery Plant, where they are mechanically treated to extract wolframite that cannot be manually extracted.

### Step 4: Upgrading plant, weighing and Négociant tagging

Gifurwe has a mechanical Recovery Plant that extracts wolframite from tailings (waste-sands) that cannot be exploited manually by the miners. The plant allows the recovery of around 60 to 65% of wolframite from the tailings. Since the Plant receives untagged waste material (tailings) from the mine, it is treated as another mine producing site (the 10<sup>th</sup>) and accordingly tagged with “RW Mine” tags (instead of Négociant tags). The Recovery Plant is in operation since the end of 2011, and has not yet attained its full capacity so that most of the mine production continues to be generated by the nine manually producing sites.

The Recovery plant also upgrades consignments from the mine pits through mechanical processes. The upgraded material is then again put in 50 kg bags (since the mine does not have machinery to handle heavier bags) and tagged with RW Négociant tags<sup>21</sup> before the bags are sent to the exporter..

<sup>20</sup> The mine Ops manager revealed that the equipment to be assigned to the workers is prepared the day before in order to save time when distributing it in the morning briefs.

<sup>21</sup> As both mine production and upgraded mineral are put in 50 kg bags, the number of RW Négociant tags used at Gifurwe is roughly equal to that of RW MINE tags (minus the mass that is lost during the upgrading process).

### Step 5: Storage and Transport to exporter's premises

WMP handles the export of its production directly (through its parent company Wolfram Bergbau und Hutten AG). Consignments from the mine are therefore sent to the WMP premises in Kigali.

Production leaves the site once a month. In the meantime, it is stored on site in lockers. Each cooperative puts its production in a storeroom with 2 lockers: 1 locker key is held by the co-op leader, while the other is held by the GMD Tag Manager. This system ensures that the consignments in the storeroom cannot be manipulated without the presence of the GMD Tag Manager.



### 5.1.2 Description of the Traceability System in place

#### The ITSCI Traceability System at Gifurwe

##### Step 1: Mining and supplying

The GMD Tag Manager (who is the single ITSCI officer at Gifurwe) patrols the different production sites in the morning to check that operations are processing regularly.

##### Step 2: Weighing and tagging

The GMD Tag Manager reaches the first weighing and tagging station at 2:30 PM to supervise operations. From the station, both the washing stations and mine pit exit are visible. The GMD Tag Manager then fills the ITSCI mine site logbook with the following information:

- Date and time of each consignment
- Assigned mine tag number
- Names of the producing miners and co-op leader
- Weigh of the consignment
- Information on the buyer ("WMP Gifurwe"), the price (3.2 USD/Kg) and the approximate Grade (82%) is the same on all the logbooks as this information is provided by the mine operator

##### Step 3: Transport to Upgrading Plant

The GMD Tag Manager then fills on the ITSCI mine logbook the following information:

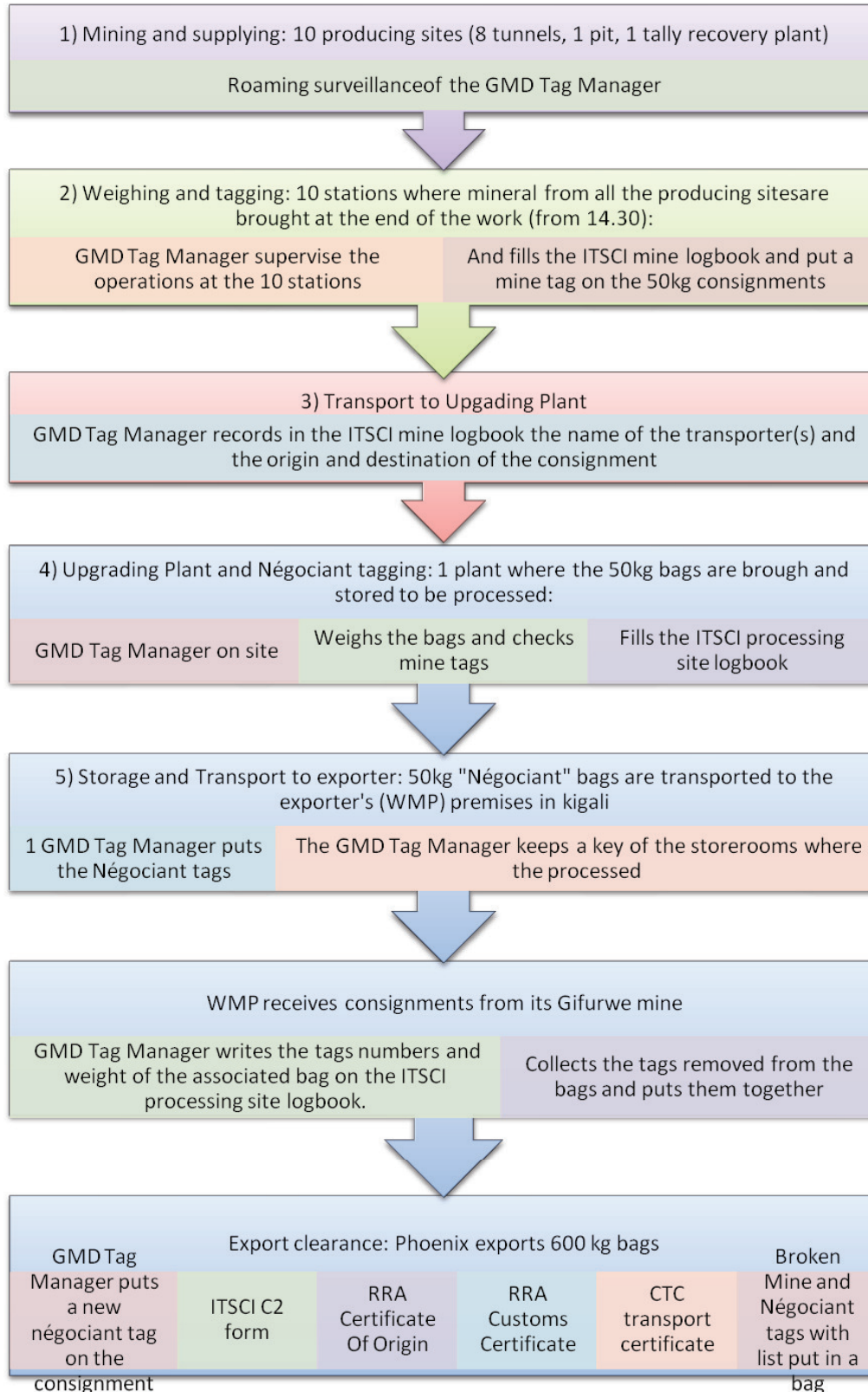
- Transport route (*tunnel to stock*)
- Transport method (*carried by workers*)
- Name of the transporter(s)

##### Step 4: Upgrading plant, weighing and Négociant tagging

The ITSCI officer removes the RW Mine tags from the 50 kg bags transported from the tagging stations. After the mineral undertakes the mechanical processing, it is again bagged in 50 kg bags, since Gifurwe does not have machineries to handle heavier bags. At this point the ITSCI officer thus puts a RW Négociant tag on the bags and writes the tags numbers, the selling price (12.8 USD/kg) and the grade (60%) on the ITSCI processing site logbook.

### Step 5: Storage and Transport to exporter's premises

The GMD Tag Manager writes the name of the transporter and the transport route ("Gifurwe to Kigali") on the ITSCI processing site logbook and signs it together with a mine security and the Gifurwe production manager.



## 5.2 Assessment of Compliance of Chain of Custody 3

### 5.2.1 ICGLR Standard 4.6 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance

*Mineral consignments only originate from mine sites defined as Certified according to ICGLR standards. (Explanatory note: “Certified”, for the purpose of this evaluation, shall include both green- and yellow-flagged mine sites in Rwanda. It explicitly excludes any red-flagged mine sites).*

#### ITSCI

The Mine and Négociant tags issued to Gifurwe are identifiable from the first digits of the code ITSCI has attributed to it and namely 8363 for the Mine and 8090 for the Négociant tags. The mine receives 200 Mine and 200 Négociant tags from the GMD.

The tags are safely stored at the GMD officer’s office at the Mine’s premises. The GMD officer has designed a storage box with two separate lockers: one key is held by him and the key of the other locker is held by a Gifurwe mine security so that both have to be present at the same time to open the tags storage box (see picture). The same system is used to store the mineral consignments and will be discussed under the ICGLR standard 4.8.



#### Risks in the process and tracking system

At the time of this review, Gifurwe is not ICGLR certified.

At the time of this review, the operational policy between ITSCI and GMD regarding the storage of tags or mineral consignments could not be reviewed.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.6 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

It is recommended for Gifurwe to undergo an inspection in accordance with the ICGLR mine inspection requirements. In the absence thereof, it is recommended for the ICGLR to publish a list of mine assessment mechanisms recognised to be fully equivalent to the ICGLR mine inspections.

### 5.2.2 ICGLR Standard 4.7 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance

*Mineral consignments from Certified mine sites are fully traceable through their accompanying documentation from the mine of origin up to the point of export.*

#### ITSCI

Documentation from the ITSCI tracking system at Gifurwe allows for consignments to be traceable from the tagging point (but NOT from the pit of origin) through the processing phase (where “RW Négociant” tags are put and registered) to the point of export.

### Risks in the process and tracking system

A major risk in the ITSCI tracking system is that it does not provide the information written in the mine and processing site logbook to the consignees of the mineral that leave Gifurwe. This information is only available at Gifurwe, at the GMD or at ITSCI office in Kigali (the recipients of the three copies of the ITSCI logbooks) but are normally transmitted with considerable delay with respect to the physical movement of the minerals. This does not allow to the consignee of Gifurwe minerals to cross check the origin of the RW Négociant tags on Gifurwe 50 kg bags.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.7 |  | Partially compliant. |
|---|--|----------------------|

### Recommendations:

A solution has been developed outside the ITSCI system that is of shipping a photocopy of the ITSCI logbooks to the consignee together with the mineral consignments. This procedure should be adopted as a standard procedure by ITSCI, developing logbooks that produce a copy for the consignee in addition to those for the site, ITSCI and GMD.

### 5.2.3 ICGLR Standard 4.8 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance

*Mineral consignments from Certified mine sites are fully physically separated from mineral consignments from other sites, from the mine site to the point of export. Mineral consignments from different Certified mine site may be physically mixed provided the relative proportions of minerals from different certified mines of origin remain traceable.*

### ITSCI

The only ITSCI officer at Gifurwe manages to ensure that mineral consignments from the mine pits downward are not unduly mixed with minerals of unknown origin by roaming the entire concession at random times. This procedure shows the mine operator that the ITSCI officer oversees their operations and can interact with them at any time to collect evidence on the regular performance at the mine.

### Risks in the process and tracking system

At the time of this review, Gifurwe was not ICGLR certified and thus there is no mechanism in place at WMP to ensure mineral consignments from ICGLR certified mines are maintained segregated from those originating in non-ICGLR certified mines.

By definition, the only ITSCI officer cannot simultaneously oversee the 10 weighing and tagging stations at Gifurwe but can only attend them in sequence. This makes the system reliant only on the Gifurwe self-imposed vigilance to ensure that consignments from Gifurwe have not been unduly mixed with mineral of unknown origin.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.8 |  | Partially compliant. |
|---|--|----------------------|

### Recommendations:

It is recommended for WMP to assess the potential for receiving mineral consignments from ICGLR certified and non-ICGLR certified mine sites in the future. If the assessment reveals potential purchases from both

types of mines, WMP should commit to and establish a procedure to ensure the physical segregation of mineral consignments from ICGLR certified and non-ICGLR certified mine sites.

ITSCI should improve its interaction with the operators to collect good and best practices (like the ones developed by the operator at Gifurwe) into Standard Operating Procedures. This would also give a positive feedback to the ITSCI officers proving that a concrete follow-up is given to their initiatives.

Since the 10 weighing and tagging stations are in line of sight of the tunnels exit and washing points they belong to, it would theoretically be easy to install surveillance cameras at each station that constantly monitor the entire area and, ideally, stream video to the PACT office in Kigali.

#### 5.2.4 ICGLR Standard 4.9 - Chain of Custody 3: Wolfram Mineral Processing Gifurwe concession compliance

*The supply chain of mineral consignments is conflict free. For the purpose of the ICGLR Tracking and Certification Scheme, 'conflict free' means that none of the actors in the mineral chain contribute at any time, through the extraction, transport, trade, handling or export of minerals, to any direct or indirect support to non-state armed groups or public or private security forces engaged in illegal activity and/or serious human rights abuse. Direct or indirect support" to non-state armed groups or public or private security forces through the extraction, transport, trade, handling or export of minerals includes, but is not limited to, procuring minerals from, making payments to or otherwise providing logistical assistance or equipment to non-state armed groups or public or private security forces or their affiliates who:*

*4.9.1 illegally control mine sites or otherwise control transportation routes, points where minerals are traded and upstream actors in the supply chain; and/or 4.9.2 illegally tax or extort money or minerals at points of access to mine sites, along transportation routes or at points where minerals are traded; and/or 4.9.3 illegally tax or extort money or mineral shares from mine site owners, mine site operators, intermediaries, traders, export companies, or any other actors in the upstream chain of custody.*

#### ITSCI

The security guards provided by the Shabuka cooperative have not undertaken a full police clearance to certify that they are not linked with any of the illegal groups mentioned under ICGLR standard 4.9.

#### Risks in the process and tracking system

The lack of police clearance of the Shabuka security guards is the only relevant risk for this standard, since the rest of the company's chain of custody is reasonably resilient to contamination from mineral of possible conflict source.

|   |  |                      |
|---|--|----------------------|
| Assessment of compliance vs. ICGLR Standard 4.9 |  | Partially compliant. |
|---|--|----------------------|

#### Recommendations:

Shabuka cooperative should be established as a proper security company registered at the RDB. Furthermore proper police clearance to its security guards deployed at Gifurwe should be given and adequately shared with the mine's governing officers. Finally, security guards overseeing a mineral chain of custody compliance to ICGLR standards should receive chain of custody-specific trainings, ideally developed by the ICGLR, ITSCI or the GMD on how to prevent chain of custody contamination with minerals of unknown or conflict origin.

### 5.2.5 ICGLR Standard 4.10 - Chain of Custody 3: Wolfram Mineral Processing Gifurwe concession compliance

*Tracking data from the mineral chain and the Chain of Custody tracking system are transmitted to the ICGLR Secretariat. The data from the Chain of Custody system shall be transmitted to the ICGLR Secretariat in full, in its unprocessed state. The data shall not be redacted, aggregated, grouped, or otherwise processed in any way that might serve to hide, disguise, obscure or otherwise impede the ability of the ICGLR Secretariat to have full access to every particular of every parcel, lot or shipment of Designated Minerals.*

#### ITSCI

Besides the copies of the mine and production site ITSCI logbooks for the GMD, any other data disclosure is managed by WMP central office in Kigali and not directly by the mine.

#### Risks in the process and tracking system

There is a low level of interaction between WMP and the ICGLR through the GMD. No regular meeting is held to define the reporting obligations of WMP to the ICGLR, besides the information provided by the ITSCI logbooks to the GMD.

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| Assessment of compliance vs. ICGLR Standard 4.10 |  | Partially compliant. |
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#### Recommendations:

The Ministry of Mines should organize a proper sensitization campaign to all the stakeholders in the mining sector to disseminate the obligation of sharing information with the ICGLR. It could provide assistance in an initial phase, such as by providing a standard reporting tool to all of the stakeholders.

### 5.2.6 ICGLR Standard 4.11 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance

*The system is transparent in its documentation and decision making structures. The existence and status of all participants in the ICGLR Mineral Tracking and Certification System (including but not limited to mine operators, traders, processors, comptoirs and smelters) shall be publicly disclosed, along with any ICGLR administrative reports or audits pertaining to that status. The decisions of the ICGLR Secretariat and Committees must be publicly disclosed, along with the underlying documentation supporting those decisions.*

#### ITSCI

WMP has signed an agreement with ITRI on 15 September 2011 to become a full member of the ITSCI programme. The Article 9 of the membership agreement, labelled “Confidentiality and data handling” states clearly that data exchanged between the company and ITSCI under the ITSCI tracking system is confidential and can only be accessed by third parties upon consent of WMP. Every request to access these data shall be addressed to the ITRI secretariat in London.

#### Risks in the process and tracking system

#### ITSCI

The governance structure of ITSCI is clear to the ITRI members at different levels and accepted by the operators when they sign the agreement with ITRI when opting in the ITSCI tracking system. Thus no major risk of ITSCI incompliance with this ICGLR standard exist.

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| Assessment of compliance vs. ICGLR Standard 4.11 |  | Compliant. |
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**Recommendations:**

**ITSCI**

ITSCI should promptly inform the ICGLR of any change in its governance structure and ownership.

**5.2.7 ICGLR Standard 4.12 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance**

*The system is open to inspection to independent audits by Third Party Auditors.*

Gifurwe was audited by a number of third parties including Channel research, CTC, the Rwandan Revenue Authority and others.

**ITSCI**

The ITSCI system at Gifurwe has been successfully audited by Channel Research on March 2011.

**Risks in the process and tracking system**

The company has been subject to an increased number of audits and assessments from different parties interested in the chain of custody process. This has brought both an increase in the audit costs to the company and in general an audit fatigue since WMP officers are often diverted fro their normal activities to attend the auditors.

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| Assessment of compliance vs. ICGLR Standard 4.12 |  | Compliant. |
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**Recommendations:**

MoUs should be agreed upon by the different parties interested in auditing the chain of custody to mutually agree each other audits and eventually produce a standard audit template that can cover all the main aspects. The ICGLR should take a proactive role in bringing forward this integration and coordination of audits.

**5.2.8 ICGLR Standard 4.13 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance**

*The system has to submit to independent audits by the ICGLR Independent Mineral Chain Auditor.*

Gifurwe management, officers and employees have been fully cooperative with the Auditor, providing free and unhindered access to every documentation, procedure and installation within the concession's premises. They facilitated the visit and provided timely response to all the requests of the Auditor

**ITSCI**



The ITSCI officers have been open and cooperative during the visit of the ICGLR-mandated auditor, granting access to all the documents (tags, logbooks, drafts) they had.

**Risks in the process and tracking system**

The same risks identified in the previous **section** regarding increasing audit costs and audit fatigue fully apply to this standard as well.

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| Assessment of compliance vs. ICGLR Standard 4.13 |  | Compliant. |
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**Recommendations:**

The ICGLR audit committee and the GMD should take a proactive role in coordinating ICGLR audits with existing third party ones to prevent the multiplication of audits with similar standards and procedures.

**5.2.9 ICGLR Standard 4.14 - Chain of Custody 3: Wolfram Mineral Processing at Gifurwe concession compliance**

*The system has a governance and risk management system installed.*

**ITSCI**

The spot-check procedure at tunnels implemented by the ITSCI officer at Gifurwe allows to maximise the chain of custody monitoring capacity with a minimum amount of manpower. The system developed to ensure that the ITSCI officer has always one key of each locker where minerals are stored is a solid risk management initiative that prevents manipulation of the consignment without the consent of the ITSCI officer. Likewise, storing the ITSCI logbooks and the GMD tags in a box with two lockers guarantees that no unauthorised access to the tracking system sensitive material is possible.

**Risks in the process and tracking system**

Since good practices developed by an ITSCI officer are not institutionalised, there is a risk of losing them with a change in the ITSCI officer at Gifurwe.

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| Assessment of compliance vs. ICGLR Standard 4.14 |  | Partially compliant. |
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**Recommendations:**

ITSCI should implement a system where good and best practices developed by its operators are converted in Standard Operating Procedures and shared to all the operators. Also ITSCI should promote periodic meetings of all operators to share ideas, experiences and suggestions.