

**MINERVA S.A.**

**Third-party Audit Report to meet  
“Undertaking to adopt minimum criteria  
for industrial-scale operations with  
cattle and beef products in the Amazon  
Biome”**

## **THIRD-PARTY AUDIT REPORT TO MEET “UNDERTAKING TO ADOPT MINIMUM CRITERIA FOR INDUSTRIAL-SCALE OPERATIONS WITH CATTLE AND BEEF PRODUCTS IN THE AMAZON BIOME”**

To  
**Minerva S.A.** (‘Minerva’ or ‘Company’)  
Barretos - SP  
Attn.: Sustainability Management

### **I) Introduction**

Greenpeace has been studying the behavior of the production chain for cattle-raising in the Amazon region since 2007. In 2009, after a long investigation, the organization published its report “Slaughtering the Amazon”, which highlighted the relationship between the processing companies, involved in forest clearance and slave labor, and the latest products offered for sale in the international market. Subsequently, the processing companies JBS, Marfrig and Minerva, made a public undertaking to exclude from their lists of suppliers the ranches responsible for deforestation after October 2009, as well as those that use labor analogous to slavery or that are located in indigenous lands or environmental conservation areas. The public agreement that establishes criteria for cattle purchases from properties located in the Amazon Biome is entitled Public Commitment on Livestock and is defined by the document “**MINIMUM CRITERIA FOR INDUSTRIAL-SCALE OPERATIONS WITH CATTLE AND BEEF PRODUCTS IN THE AMAZON BIOME**”.

### **II) Purpose**

BDO RCS Auditores Independentes (‘BDO’) has been engaged, in terms of Proposal No. 0391/15, to carry out predetermined procedures, which appear in italics in this report, for an independent assessment, by means of an audit of Minerva data and procedures, of whether the Company has met the criteria assumed in the above-mentioned public agreement, for the period from 01/01/2015 to 12/31/2015. The audit procedures agreed between the parts are described in the TdR “Third-party Audit Reference Term 2016 (base year 2015)”.

### **III) Audit period**

The audit was carried out between May 17 and June 22, 2016.

#### IV) Description of the Company and of the cattle purchasing process regarding Public Commitment on Livestock

*“To describe in detail the scope of the audit, informing the number of units of the company to receive animals from the Amazon Biome region.”*

*(Extract from TdR)*

The Company currently has thirteen (13) active slaughterhouse units, being seven (07) in Brazil and six (06) abroad (three in Paraguay, two in Uruguay and one in Colombia).

The Company also has a unit located in Abaetetuba, state of Pará (PA), which differs from the others for not being an industrial plant, but an office for the export of live cattle.

Among the units located in Brazil, six (06) received animals from farms located in the Amazon Biome in 2015, which were:

- Abaetetuba - PA (office for live cattle export);
- Araguaína - state of Tocantins (TO);
- Mirassol D'Oeste - state of Mato Grosso (MT);
- Palmeiras de Goiás - state of Goiás (GO);
- Rolim de Moura - state of Rondônia (RO);
- Várzea Grande - state of Mato Grosso (MT).

For the auditing procedures, according to instructions from the Reference Term, It was made an analysis of 10% on purchases made in 2015 from properties located in the Amazon Biome region. This sample, to be detailed later in this report on the topic "Step 1- Sample Selection", included every month in 2015 and proportionally all the six (06) plants inserted or supplied with raw materials from the Amazon Biome region.

Before presenting the tests performed and their results, it is important to demonstrate the meaning of the following acronyms, which can be used throughout the report:

- ADEPARÁ: Agricultural and Livestock Defense Agency of the State of Pará;
- CAR: Rural Environmental Registry;
- CCIR: Certificate of Registration of Rural Property;
- DETER: Real-time Detection of Deforestation;
- FUNAI: National Foundation for Indigenous People;
- GTA: Animal Transit Form;
- IBAMA: Brazilian Environment and Natural Resources Institute;
- ICMBio: Chico Mendes Institute for Biodiversity Conservation;
- INCRA: National Institute for Settlement and Agrarian Reform;
- INPE: National Institute for Space Research;
- LAR: Rural Environmental License / LAU: Single Environmental License;

- MPF: Federal Public Prosecution Office;
- MTE: Ministry of Labor and Employment;
- PRODES: Brazilian Amazon Deforestation Monitoring Project;
- SEMA: State Department of Environment;
- SIF: Federal Animal Sanitary Inspection Service;
- SMBA: Amazon Biome Monitoring System

*“To describe in detail the company systems for cattle purchases, its procedures and mechanisms used to fulfill the “Public Commitment on Livestock”, based on the public lists and on the GEO list, besides the animal rastreability system”.*

(Extract from TdR)

Analysis of cattle purchase routine and interviews were conducted with the main responsible, including the outsourced company responsible for geomonitoring of suppliers properties of Minerva and, through that, it was possible to identify relevant processes, and to examine the registries and information of suppliers included in Minerva's database.

Since the end of 2011, with the creation of the Company's intranet, the registry and data updating of suppliers is under the responsibility of employees of the Sustainability department, located in Minerva's head office in Barretos - SP. Therefore, purchasers of cattle from the Company's units can make only an initial registry of a new supplier or new property.

According to this undertaking, Minerva checks the following social and environmental issues about the CPF (Individual Taxpayers Register)/CNPJ (Corporate Taxpayers Register) of the owner of the property:

- Embargoed areas: Checking IBAMA's list;
- Existence of degrading or slave-like work: consultation to the MTE list up to September 03, 2015 and to the Transparency List on Slave Labor, provided by InPacto, after that date;
- Deforestation: through analyses of the geomonitoring company (according to updates from PRODES and DETER made available by INPE), or receipt of official letter from MPF;
- Invasion of indigenous land: through analyses of the geomonitoring company, by official letters sent to FUNAI, or receipt of official letter from MPF;
- Land grabbing and agrarian violence: by official letters sent to INCRA and ICMBio, or receipt of official letter from MPF;
- Protected areas: through analyses of the geomonitoring company, by official letters sent to ICMBio, or receipt of official letter from MPF.

Suppliers included for the first time in Minerva's system have their CPF/CNPJ checked two (02) times in IBAMA's list of embargoed areas, and currently in the Transparency List of slave-like work, once by the Cattle Purchase team (initial registry) and another by the Sustainability team (confirmation of registry). The procedure is followed both for suppliers and lessees, in case such agreement exists.

When making the initial registry, the cattle purchaser, by means of exclusive login and password to access the intranet, enters the documents necessary and information about the property and owner, given that the registries are different. These data are received by Minerva's Sustainability team and, for purchases made in the Amazon Biome, are sent to the hired geomonitoring company to check the regularity of the property. The Sustainability team is responsible for checking compliance by the property owner with Minerva's commitment of not acquiring cattle from properties with boundaries inside embargoed or protected areas, degrading or slave-like work, deforestation, invasion of indigenous land, land grabbing and agrarian violence.

If any irregularity is found, the registry is not concluded and the purchase process is cancelled. If no irregularity is found, the registry is concluded and it is possible to make the purchase from that property.

Continuing the cattle procurement process, it is carried out a consulting to the list containing employers caught by exploration of work analogous to slavery.

In the last days of 2014, the public list of MTE with employers convicted for exploitation of workers was removed from the official website pursuant to an injunction issued in the Direct Unconstitutional Action No. 5.209 of the Federal District transcribed by the Minister President of the Supreme Court Ricardo Lewandowski, proposed by the Brazilian Association of Developers Real Estate (ABRAINCA). As a consequence, there was no new publication of the list, as it occurred every six months, limiting the exams to the last list published on 07/01/2014, and updated on 12/26/2014.

In view of the above, as the injunction remained valid until the end of 2015, "Repórter Brasil" and "InPACTO" (Institute National Pact for the Eradication of Slave Labor) applied under the "Law on Access to Information" (Law No. 12.527/2012) for the MTE to supply details of employers accused of keeping workers in a condition analogous to slavery for which a final administrative decision had been rendered, between May 2013 and May 2015. As a result, a document entitled "Transparency List on Slave Labor" was received on September 3, 2015, and can be consulted, and downloaded in PDF or Excel format, on the websites of Repórter Brasil or InPacto.

On May 16, 2016, the minister Carmen Lúcia revoked the injunction that prevented the disclosure of the labor work list. However, until the end of the audit period, the MTE had not published a new list of employers.

Thus, according to information from the Company's Sustainability department, as from September 04, 2015, it was implemented in Minerva's system consultation to the Transparency List for blocking slave work.

The employee purchasing cattle enters the CPF/CNPJ of the owner in the most recent list of employers issued by the MTE, makes the search, and if no match is found, includes the print of that screen into the owner's registry file in the system, to prove that the CPF/CNPJ was not found in the list.

Concerning the consultation to the list of properties embargoed by IBAMA, since 2014 purchases have used the owner's embargo certificate, where it is included all information on the embargo or the information that no embargo exists for the CPF/CNPJ consulted. This document is valid for one (01) month and it is an official file from the Ministry of Environment, downloaded from:

<https://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php>

As the CPF/CNPJ is manually input for its search on the MTE and IBAMA lists, the employee is instructed to make the search twice in the moment of purchase. Additionally, the Sustainability team checks the purchase pre-orders, analyzes the consultations to IBAMA and MTE, and instructs cattle purchasers by means of training on its Standard Operating Procedure for cattle purchase.

We point out that the Company is part of IBAMA's Working Group that seeks the improvement of the information published by that agency, and that Minerva is waiting its digital certification by IBAMA to allow the integration of its ERP (Enterprise Resource Planning) system with IBAMA's database, through web service. As for the MTE, Minerva is one of the companies involved in the formation of the Slave Labor Working Group (captained by meat and soy trade associations) established to improve the list when once again online.

As for the geomonitoring process, Minerva uses the services rendered by NicePlanet Apoio Administrativo Ltda. ("Apoio Consultoria"), which provides to the Company the platform Amazon Biome Monitoring System ("SMBA"). The system is basically structured on official data and files from the federal and state governments published on websites of institutions and agencies and on complementary register information obtained by Minerva and made available to Apoio Consultoria. The database is daily monitored, which guarantees more accurate analyses of the social and environmental status of the supplier properties.

The online platform provides the certification of the social and environmental monitoring of the properties and their reanalysis at each purchase, performed according to the Company's units scale. The certificates resulting from these analyses are grounded on official public documents and on the analyst's technical opinion, and made available to responsible cattle purchases for decision making.

The methodology applied and main activities of the geomonitoring company are described next:

- Daily update of registry database;
- Evaluation of new cattle suppliers;
- Cadastral improvement of registered properties suppliers;
- Update of public bases of information (made available by INPE);
- Routines of analyses of social and environmental compliance of the supplier properties;
- Crosschecking geographic information about suppliers against supporting data for monitoring of deforestation and overlapping with indigenous land and protected areas (made available by INPE);
- Online support to the system users;
- On-site support available within 72 hours.

In brief, Apoio Consultoria is responsible for confirming the perimeter or pair of georeferenced coordinates of the cattle supplier properties, in order to check the occurrence of deforestation as from October 05, 2009 (date of the undertaking with Greenpeace), crosscheck the data against indigenous land and overlapping with conservation areas. After the analysis, the properties are classified as:

- **Authorized:** Classification attributed to all properties in which the CPF/CNPJ of the suppliers is not included in the public consultation lists of environmental violations and embargoes from IBAMA or, if included in one of the lists, identified that the embargo refers to a property different from the supplier property under analysis. It is also considered if the property boundaries do not overlap with indigenous land, conservation units, DETER or PRODES deforestation polygons, or with other properties;
- **Requiring attention:** Classification attributed to the properties in which the CPF/CNPJ of the suppliers is not included in the public consultation lists of environmental violations and embargoes from IBAMA and even if identified that the embargo refers to a property different from the supplier property under analysis, this should be at a straight distance close to the minimum limit established. Requiring attention may be also the classification of properties whose boundaries, already validated by maps, overlap by less than 10% of its total area with indigenous land, including evidence of use of the overlapping area, and/or with conservation units, and/or with DETER deforestation polygons, and/or with other properties;
- **Unauthorized:** Classification attributed to all properties in which the CPF/CNPJ of the suppliers is included in the public consultation lists of environmental violations from IBAMA, or in which the boundaries of the related property, already validated by the cartographic criteria, has more than 10% of its total area overlapping conservation units fully protected or of sustainable use with no license for cattle raising activity; or the perimeters of the related property, already validated by the cartographic criteria, overlap PRODES deforestation polygons, with confirmation of total clearance as from the multi-temporal analysis of satellite images;

- **Blacklist:** Classification attributed to all properties whose perimeters, already validated by cartographic criteria, has more than 10% of its total area overlapping indigenous land or conservation units fully protected, with evidence of use by men of the overlapped area.

All communication between the parts is established through the SMBA platform, where the Company inputs the requests for consultation of the registers along with the documents required to make the analyses. The requests are received by Apoio Consultoria by means of electronic notification. The following documents from the supplier attached to the SMBA platform along with its registry data, if applicable, are presented below:

- Contracts of lease/ loan for use/ partnership/ service rendering if the supplier is not the owner;
- Property registration including the certification of georeferencing by INCRA and the certified and approved (Law No. 10267/01) description memorandum;
- Property title;
- Deed;
- CAR: In the state of Pará, obtaining the perimeters of the cattle supplier properties is easier due to their obligation to provide the CAR of the properties upon the negotiation of cattle.
- LAR/LAU;
- Pair of geographic coordinates (collected by the Company);
- Property polygon as a georeferenced map;
- Property Descriptive Memorandum;
- Sketch map of the property access;
- IBAMA's Clearance Certificate of Embargo.

In case of any geospatial irregularity, the SMBA will extend the analysis and may request new documents.

The following listed files do not allow the preparation of the map of supplier properties' perimeters or guarantee the required accuracy:

- Files obtained from the visualization of the property on a computer screen using satellite images and programs such as Google Earth;
- Description memoranda not including the coordinates of at least one of the angles of the polygon;
- Description memoranda that even including the coordinates of one of the angles of the polygon, do not include the azimuths and distances between the angles;
- Property registrations and deeds including descriptions with the problems described in the items above;
- Aerial photographs or topographic plants not including coordinates for at least one of the angles of the policy;
- Aerial photographs or topographic plants that even including the coordinates of one of the angles of the polygon, do not include the azimuths and distances between the angles;

- Documents from animal defense agencies;
- Documents with only one coordinate described, of any form.

Apoio Consultoria generates the polygons of the properties in shapefile format, based on the documents received (described above) and informs the Company, at the moment of acquisition of cattle, if the property overlaps with indigenous land and conservation units, in addition to information on deforestation occurring after October 2009.

All files received are analyzed and when meeting technical specifications that allow their reliable digitization, they are converted into shapefile format, decimal coordinates system, and input in the register database.

The maps are viewed in the Company's database after processed by Apoio Consultoria, which analyses the possible overlapping, perimeter distortions, such as river curves, roads, and others. After this analysis, the information referring to identification of the property, owner, and geographic reference are input and filed in the database.

Through the described procedures, the maps can be used for monitoring the vegetation coverage of the supplier properties of cattle for slaughter or export.

After the registration procedures, Apoio Consultoria will classify the polygons of the properties in the database as:

- **Provisional:** It is a perimeter whose location of the property is certain with the confirmation of at least two boundaries with geographical aspects observable in satellite images;
- **Definitive:** This is the perimeter whose location of the property is certain and the polygon formed is totally closed, with no doubts on any boundaries concerning its geographical aspects when superimposed upon satellite images;
- **GEO definitive:** The polygon forming the perimeter will meet all possible technical assumptions and show the boundaries in disagreement of use and non-use areas, as well as their classifications.

Perimeters classified as provisional are released for a first purchase; however, a message via SMBA platform is sent informing that this perimeter will be blocked for future purchases, with the property being classified as "requiring attention". Unblocking can be made by means of documents that may validate or allow the design of the definitive polygon of the property and, in some cases, unblocking can be authorized by Sustainability Executive Management by means of a manual exception, when the owner provides some proof of compliance.

Besides confirming the perimeter, or pair of coordinates, Apoio Consultoria is also responsible for checking if the property is not located inside indigenous land or conservation units, and for analyzing the occurrence of deforestation in the place.

Regarding the overlapping of the property with Indigenous land, the official files from FUNAI are overlapped with the perimeters of the supplier properties. If no overlapping with Indigenous land is found, the property is classified as “authorized”; however, if found that the property is included in Indigenous land, except those yet under study, they will be classified as “unauthorized” and included in the “Blacklist”. For cases of Indigenous land yet under study, there will be a filter in the system for the release of these properties, which will be reassessed twice a year in the months of July and December.

As for conservation units, the official files of the Ministry of Environment are overlapped with the perimeters of the supplier properties and, if no match is found with any conservation unit, the property is classified as “authorized”, otherwise as “unauthorized”. Other protected areas are registered as “requiring attention” and then blocked to be verified by the Sustainability and Legal Departments of the Company. If a valid license and/or official document exists, the property may be authorized. If there is no supporting documentation, the property is classified as “unauthorized”.

For both cases of overlapping with Conservation units and Indigenous land, there is a tolerance level of up to 10% overlap of the property total area on any Conservation unit or Indigenous land.

For the analysis of the deforestation criterion, the verification occurs in two (02) different moments: upon the registry of the property and on purchase. Additionally, deforestation can be confirmed through both DETER and PRODES, as detailed below:

- **Analysis of DETER polygons:** If there is no overlapping of DETER deforestation polygons with the polygon shapes of the suppliers property, the property will be classified as “authorized”, and the other verifications can continue to be made for later approval of the registration. If overlapping is found, the registered and analyzed supplier properties will be classified as “Requiring Attention” by DETER, remaining blocked for trading until the vegetation clearance is confirmed or not. The registered supplier properties with overlapping of DETER polygons, but whose forest clearance cannot be confirmed through the results of multi-temporal analyses of satellite images made after the date of the deforestation found by INPE will be authorized. And for registered supplier properties whose clearance is confirmed through satellite images made after the date of the deforestation found by INPE, they will be classified as “unauthorized”, showing a notification for cattle purchase regarding the change in status.

DETER reports and polygons collected during the year will no longer be used in the analyses of monitoring after the official publication of the report of PRODES deforestation polygons. Properties whose suspected deforestation is confirmed by PRODES will remain “unauthorized”.

- **Analyses of PRODES polygons:** PRODES deforestation polygons, yearly made available by INPE since 2009, are superimposed to the shapefiles of all polygon shapes of the supplier properties registered and analyzed in SMBA platform. The PRODES reports are analyzed considering only those with Julday (Julian days) referring to the date of July 07, 2009 or later, only for supplier properties in the state of Pará, and Julday referring to the date of October 05, 2009 (Greenpeace Agreement) or later for the other states. For supplier properties with PRODES overlapping the polygon shapes of the perimeters, multi-temporal analyses will be made using the satellite images provided by INPE to confirm deforestation (total clearance) within the described polygon. If deforestation is found, the supplier property will be blocked for trading, the registration is finished and the property is classified as “unauthorized”. Properties included in PRODES, but with no vegetation clearance confirmed through multi-temporal analysis of satellite images are classified as “authorized”, characterizing the polygons as false positives in geospatial analysis. The SMBA platform provides the maps that show the lack of deforestation in the indicated area.

It is important to mention that the whole process of geomonitoring conducted by Apoio Consultoria shall be reported to the Company within four (04) hours for priority analyses and eight (08) hours for regular analyses, as agreed between the parties.

Concerning the traceability of the origin of the cattle, we point out that in Brazil traceability is focused on the health aspect, not as a safety issue, given that it improves guarantee on the delivery to final consumer and/or adds value to the product. The Company’s traceability, when applied, is made through the Service of Traceability of Bovine and Buffalo Production Chain (SISBOV) created by the Ministry of Agriculture, Cattle Farming and Supply, which identifies and monitors bovine cattle born in Brazilian territory and originated from abroad.

Although there is no support from government for traceability, exports to the European Union, as required by local legislation, mandatorily include only animals tracked by means of ear tags since their ten (10) months, using the SISBOV system. “Hilton cattle”, as the animal for export to the EU is called, must be originated from properties rigorously selected. The Company has few farms suppliers of cattle ear-tagged by SISBOV due to the limitation of traceability in Brazil, as previously mentioned.

Additionally, the Company complies with the requirements of the Ministry of Agriculture, pursuant to Decree No. 5.741 of March 30, 2006, which determines the inspection of animal transit, through the acquisition only of animals with GTA issued, for all movement of cattle, whether intrastate (between two or more states) or interstates (within the state). The company requires the issue of the GTAs for the travel from the supplier’s cattle farm to the slaughter house or from the plant to the shipment of the live cattle for export, as a way to promote the cattle traceability and to allow that the services of livestock farming defense accompany the transit of animals.

*“To describe the cattle purchase blocking system used by the company, how it is updated in accordance with the public lists and the GEO list”.*

(Extract from TdR)

The block of suppliers is made through a locking system, and manually by the Sustainability team at each analysis made. The system is responsible for blocking the CPF/CNPJ of irregular owners and for the creation of exceptions for purchase from properties not included in IBAMA’s embargo lists and GEO list (spreadsheet generated from data from the geomonitoring system of properties in the Amazon Biome, including the results of monitoring certificates made in 2015), but owned by blocked owners.

It is important to point out that in blockades due to inclusion of the owner in MTE’s list, for slave labor accusations, no exception is created, because the CPF/CNPJ of the owner is blocked, as well as all properties held by that owner, and it is not possible to acquire cattle from any of the farms they own.

Access to the system for the creation of exceptions is limited only to the employees of the Sustainability team, who works directly in monitoring activities. Information on the blockades from IBAMA is daily gathered and from MTE at each update. The information is then inserted by an employee into an Excel spreadsheet with codes and sent to the IT department, which enters the information into the Company’s database to feed the locking system procedure.

As for the remaining blocking information, related to deforestation, overlapping of indigenous and protected land, conservation units, agrarian violence, and land grabbing, when received from the geomonitoring company or from the MPF, when applicable, it is inserted by the Sustainability team in the intranet, and stored in the Company’s database.

Information on the blockades is gathered then prepared by an employee into an Excel spreadsheet with codes and sent to the IT department, which enters the information into the Company’s database to feed the locking system procedure. For entering unauthorized CPFs from the geomonitoring company, the information is not included in an Excel spreadsheet and the CPF is simply inserted in the blocking system available on the intranet.

The information included in the spreadsheet is obtained by Minerva from different sources, as shown below:

- **Conservation units:** Monitoring made by Apoio Consultoria;
- **Indigenous land:** Monitoring made by Apoio Consultoria;
- **IBAMA:** daily download of the embargoed properties list, and by consultation to the CPF/CNPJ of the supplier at each acquisition of cattle;
- **MTE:** download of the list of owners convicted for slave labor, whenever the list is updated, and by consultation to the CPF/CNPJ of the suppliers at each acquisition of cattle;

- **FUNAI:** Minerva sends letters requiring the regional offices of the entity to check compliance of its suppliers. In 2015, the letters were sent to FUNAI on 12/09/2015 and replied by three (03) regional offices, all of them informing that no invasion to protected areas was found;
- **Deforestation:** Apoio Consultoria updates the database according to PRODES and DETER updating;
- **INCRA:** compliance is checked by the real state number of the property or CCIR document presented at the registration moment;
- **MPF:** Irregularities are found by means of notices sent by the very MPF to Minerva;
- **Internal control:** In the occurrence of ivermectin contamination, Minerva's traceability team requests the block of the property to the Sustainability department, so that it remains blocked until its regularization.

When a property is released in the system, this unblocking normally lasts three (03) days, one day before slaughter, the day of slaughter, and one day after slaughter. We emphasize that the checks, even when an exception is created, are made at each acquisition of raw material. In some cases, the release of the property exceeds three (03) days because the properties are far from the slaughter units, so the trip may be longer. Nevertheless, the release does not exceed fifteen (15) days.

The information above, referring to the procedures followed by the third-party company responsible for the geomonitoring analyses, was obtained from the document "Social and Environmental Monitoring Operating Procedures SMBA", provided by Apoio Consultoria and adapted to this Report.

## V) Procedures

*"To describe the audit strategy (audit trail) and procedures used to demonstrate that the Minimum Criteria have been met, informing which documents were made available, as established by the Reference Document for each stage of the audit process."  
(Extract from TdR)*

The procedures adopted consisted in the analysis of documents and information referring to purchases of cattle by Minerva within the Amazon Biome areas during the period from January 1 to December 31, 2015, in accordance with NBC TSC Standard 4400 - Agreed-upon procedures engagement on accounting information, approved by Federal Association of Accountants (CFC) Resolution No. 1.277/10.

The work was performed based on the TdR, previously agreed between the signatories companies to the agreement and the NGO Greenpeace and on the related documents submitted by JBS to evidence compliance with the "MINIMUM CRITERIA FOR INDUSTRIAL-SCALE OPERATIONS WITH CATTLE AND BEEF PRODUCTS IN THE AMAZON BIOME". The main procedures applied in the audit include:

- Document inspection;
- Inquiries to employees who operate the system through interviews;
- Simulations of the existing tools.

In order to demonstrate that the Minimum Criteria have been met, as established by the Reference Document for each stage of the audit process, the following procedures were adopted. The procedures for each stage of the work and the results obtained through the checking process are detailed in the next items of the present Report.

Initially, we requested from Minerva the following documents necessary to perform the work and required analyses:

- Records of cattle purchases and receipts during the audited period;
- List of direct suppliers for the audited period;
- A list of blocked suppliers generated from analysis of satellite images and the geographical information system, with the name of the owner, identification document, name of the property, and reason for blocking, provided by Apoio Consultoria;
- Evidence that the Company is a signatory to the National Pact for the Eradication of Slave Labor;
- Invoices, purchase orders and GTAs from twenty-five (25) cattle purchases per unit, randomly selected from the sample of 10% of all purchases in the Amazon Biome;
- CAR documents from twenty-five (25) properties randomly selected from the sample of 10% of all purchases in the Amazon Biome made in 2015;
- LAR documents from twenty-five (25) properties randomly selected from the sample of 10% of all purchases in the Amazon Biome made in 2015;
- CCIR documents from twenty-five (25) properties randomly selected from the sample of 10% of all purchases in the Amazon Biome made in 2015;

In addition to the documents referred to above, the following documents were requested and received from the geomonitoring company Apoio Consultoria:

- Proof of Enrollment and Registration Status on Brazilian IRS;
- Articles of Organization and Bylaws of the company;
- Technical Responsibility Note (ART);
- Résumé of its professionals;
- Word file with the operating procedures.

Additionally, for crosschecking the public lists of embargoed areas (IBAMA) and slave labor (MTE and Transparency List) against the 10% sample of purchases from suppliers in the Amazon Biome in 2015, IBAMA's list of embargoed properties was downloaded by the audit from its website on 05/18/2016, and also the latest available list of MTE (half-yearly update on 07/01/2014, and extraordinary update on 12/26/2014), with the list of employers convicted for exploitation of workers for purchases made up to September 03, 2015. The list was made available by the Sustainability team of Minerva, given that it is no longer available for download on MTE website, as explained previously.

For purchases made as from September 4, 2015, the Transparency List was also crosschecked against the complete list of purchases by Minerva during the audit period. The list was downloaded in January 2016 from the website of the organization “Repórter Brasil” (<http://reporterbrasil.org.br/2015/09/lista-de-transparencia-sobre-trabalho-escravo-traz-nomes-flagrados-por-esse-crime/>), with updating confirmed in May 2016, and since no alterations were made in the period, the same list was used.

After receiving the documents listed and considering the interviews made with the people in charge of the departments of Sustainability, Information Technology, and Traceability of Minerva, besides interviews with the staff of Apoio Consultoria responsible for geomonitoring, the following steps were taken:

- A sample of 10% of total cattle purchases made in the Amazon Biome was selected, from 01/01/2015 to 12/31/2015, including every month of the year and proportionally all the processing units supplied with raw material from the Amazon Biome;
- The sample was crosschecked against the lists of IBAMA, MTE, and the list obtained by the geomonitoring company (deforestation, indigenous land, and conservation units), by means of their common information, the CPF/CNPJ;
- When owners or properties are found in any of the lists, we checked the date of inclusion on the list, which should be after the date of the purchase. Additionally, we checked the location of the municipality where the embargoed property and supplier are established in order to check if they are the same;
- For the owners or properties included in those lists, we tested blocking in Minerva’s purchase system, by simulating a purchase from owners identified as irregular in the previous step. According to the reference term, the sample used for the blocking test should be equal to ten (10) cases for each criterion (IBAMA, MTE, and GEO); however, it was not possible to conduct the ten (10) tests for MTE, because only three (03) CPFs/CNPJs were identified when crosschecking the lists. Regarding the criteria of irregular properties included in IBAMA’s list, twenty (20) cases were found and, accordingly, ten (10) cases were randomly selected for testing using statistical software. As for GEO list, forty-four (44) cases were found and ten (10) were selected for testing. Thus, twenty-three (23) blocking tests were conducted;
- The possibility of unblocking suppliers blocked by one of the criteria (IBAMA, MTE, and GEO) was also assessed. As later detailed, the system allows unblocking when it is locked by the CPF/CNPJ, for owners of properties embargoed by IBAMA, in cases of deforestation (PRODES and DETER), and properties inside indigenous areas and conservation units. However, unblocking occurs only when the property is not the one that generated the blocking; In cases of blocking for inclusion in MTE list, it is not possible to unblock any of the farms for purchase;

- Minerva's purchase system was evaluated by interviews with people in charge of the geomonitoring procedures in the outsourced company, for understanding the processes established to guarantee that the purchase is regular, and that no purchase is made from owners who have properties with boundaries inside indigenous lands, conservation units, or responsible for deforestation since October 2009;
- Also in respect of the geomonitoring procedures carried out by Apoio Consultoria, we verified the reliability and efficacy of the service provided by taking a sample of thirty (30) supplier farms and simulating a geomonitoring exercise. The sample included both "authorized" and "unauthorized" properties, with ten (10) properties selected for each criteria (deforestation, invasion of Conservation Units and invasion of Indigenous Lands);
- Additionally, in order to evaluate the purchases from the selected sample, a random sample of twenty-five (25) purchases per unit was generated, with all invoices, GTAs and Purchase Orders analyzed by the BDO team;
- For purchases made from suppliers in the state of Pará, the LAR documents of twenty-five (25) properties of the sample were checked in the website of the official agency, randomly selected using the statistical software, given that in this state Minerva only acquires bovine cattle from properties with regular documentation and larger than three (03) thousand hectares;
- In respect of the CAR document, twenty-five (25) properties from the sample were randomly selected by means of the statistical software to present the documentation in Minerva's system and in the website of the official agency;
- Also, to confirm the legality of property title documents, twenty-five (25) properties were randomly selected using the statistical software for checking the CCIR document in INCRA's website and in Minerva's system, with the exception that if CCIR is not available, documents such as the property registration may be accepted, considering that the purpose is to check the lack of agrarian conflicts or land invasion.

## **Stage 1 - Sampling process, testing of cattle purchases and testing of blocking system of suppliers in noncompliance.**

### **Step 1 - Selecting the sample**

*“To give a brief description of the procedures used for selecting information on cattle purchases by the companies in the Amazon Biome region during the period audited, and the criteria adopted for sampling”.*

(Extract from TdR)

Minerva extracted from its ERP system the database of cattle purchases made in the Amazon Biome between 01/01/2015 and 12/31/2015. A member of BDO IT staff was present to ensure the integrity of the information extracted from that database.

From this total of purchases made from properties located in the Amazon Biome from January 1 to December 31, 2015, a random 10% sample was taken, as agreed between the companies and Greenpeace, resulting in a total of one thousand two hundred twenty-six (1,226) cattle purchase transactions.

The selection was made by the statistical software, taking each of the twelve (12) months of the sample period and considering a 10% sample to each slaughterhouse unit, thus ensuring a representative proportion of purchases from the various units of the company.

## Step 2 - Testing the system of cattle purchases

*“To give a brief description of how the public listings (IBAMA and MTE) and the Geo list were compared with the samples of cattle purchases, indicating where they coincided and where they did not”.*

*“If cattle purchase from a property appearing on any of the lists is identified, give an estimate of the volume of irregular purchases as a percentage of the total sample, and how checking was done of any cattle purchases from irregular suppliers”.*

(Extracts from TdR)

To perform our work of cattle purchase testing, we downloaded IBAMA lists of embargoed areas, and the MTE list of owners accused of using labor analogous to slavery, besides obtaining from the contracted geomonitoring company, a list of properties blocked for deforestation (PRODES and DETER), or for overlapping indigenous lands or environmental conservation units.

The download of IBAMA’s public list was made on 05/18/2016 from the agency’s website, and the CPFs/CNPJs were crosschecked against information about the properties of the sample, in order to check if any property of the list supplied cattle to Minerva in 2015.

As for the MTE list, the most recent list was checked (half-yearly update on 07/01/2014, and extraordinary update on 12/26/2014), with the list of employers convicted for exploitation of workers. We point out that the list was made available by the Sustainability team of Minerva, given that it is no longer available for download on MTE website, as explained before. This list was used for purchases made up to September 03, 2015. As from September 4, 2015, the Transparency List was also crosschecked against the complete list of purchases by Minerva during the audit period. The list was downloaded in January 2016 from the website of the organization Repórter Brasil, and on 05/18/2016 it was confirmed that there were no changes on the list.

As a result of this procedure, we have found that twenty (20) owners were included in the list of IBAMA, totaling forty-eight (48) purchases (3.90% of total purchases of the sample), considering that:

- In two (02) cases, the last purchase from the suppliers occurred before the date of their inclusion in the list, therefore showing that the property was authorized for purchases on the date of acquisition of cattle;
- In other two (02) cases, the date of inclusion in the list was not made available by IBAMA. However, it was possible to find that Minerva did not acquire cattle from irregular properties, as the supplier property is located in a municipality different from the one included in IBAMA's list;
- In the other cases, the date of inclusion in the list was previous to the purchase. Still for most cases it was possible to verify that the purchase was made in a property different from the one embargoed, by comparing the municipality of both properties. From these cases, four (04) owners had properties suppliers of Minerva in the same municipality of the embargoed property, however, Minerva's Sustainability team and Apoio Consultoria provided maps confirming that they were not the same property, being farther than thirty (30) kilometer from each other.

As for the MTE list and the Transparency List on Slave Labor, the same procedure of crosschecking the sample of Minerva's purchases against the list of owners accused of using labor analogous to slavery was followed. As a result, we have found that no owner was included in the MTE list and that three owners were included in the Transparency List, totaling five (05) purchases from those suppliers (0.40% of total purchases of the sample). In all cases, the purchase was made on a date previous to the publishing of the Transparency List (September 03, 2015).

We point out that for the owners included in the Transparency List, the years informed in the "inclusion date" were 2008, 2012 and 2013 for each of the cases. Nevertheless, these owners were not included in the last MTE list, which does not characterize irregularity according to Minerva's procedures, as the Company was not aware of the irregularity of these suppliers. Therefore, we have found that Minerva maintains its system updated with the most recent and reliable public lists.

Concerning the list obtained from Apoio Consultoria (GEO list), BDO team accompanied its extraction from the company's monitoring system on 06/08/2016. The list includes all properties monitored by the outsourced company blocked for deforestation (PRODES and DETER) and for overlapping indigenous lands or environmental conservation units in the period from 01/01/2015 to 12/31/2015.

The GEO list shows data from the monitored property and the date of monitoring, when the irregularity of the property was found, or the date when it was found that the property was authorized for purchases.

The GEO list was crosschecked against the sample of Minerva's purchases in the Amazon Biome and the result were forty-four (44) cases of purchases in 2015 from owners blocked for deforestation, invasion of indigenous land and conservation units, totaling one hundred twelve (112) cases of purchases from these suppliers, which represents 9.10% of total purchases of the sample. Details of these cases per GEO list criterion are presented next:

- Two (02) owners are included in GEO list as Unauthorized under the criterion of inexistence of pasture areas;
- Thirty-seven (37) owners were classified as Unauthorized for deforestation (PRODES);
- Two (02) owners are Unauthorized for invasion of indigenous land;
- Three (03) owners were classified as Unauthorized for invasion of conservation units.

However, no purchase was irregularly made, as we have found that:

- In two (02) cases, the purchase was made before the supplier was characterized as Unauthorized;
- In thirty-one (31) cases, the purchase was made from a regular property, authorized for purchase. In these cases, the Minerva's Sustainability team created an exception in the system for the purchase from the authorized property. This exception is valid for no more than fifteen (15) days, and after this period the property returns to be blocked for purchases;
- In two (02) cases, the purchase was made from an Unauthorized property pursuant to PRODES 2011. However, an instrument of Commitment to repair environmental damages, of 01/07/2013, in which the owners of the properties take on the commitment to make environment recovery, was provided. The document is recognized by "Instituto Natureza do Tocantins" and by Tocantins' state government;
- In six (06) cases, the purchase was made from an irregular property, but before the supplier was characterized as Unauthorized;
- In one (01) case, we have found that the property supplier of Minerva is the same characterized as irregular, however, the purchase was made in a period in which the property was still considered Authorized for purchase;
- In one (01) of the cases, the property was irregular, but despite being included in PRODES 2012, it was considered Authorized after a multi-temporal analysis of satellite images that showed no clearance of vegetation;
- In one (01) case, the property was irregular, but after adequacy of the property's perimeter guided by CAR, PRODES 2012 was positioned on its boundaries.

### Step 3 - Testing of blocking system for irregular suppliers

*“To give a brief description of how the monitoring system for cattle purchases in the Amazon Biome was assessed, how purchase blocking is effected (automatic or manual, unblocking mechanism, if applicable) for irregular suppliers, and what checks were made to identify any failures in blocking purchases of cattle from irregular suppliers”.*

*“If unblocking of a supplier is permitted, describe the criteria applied”.*

(Extracts from TdR)

After the previous procedure, when irregular suppliers are checked for embargoes from IBAMA, slave labor, deforestation, or for having properties with boundaries inside indigenous lands or conservation units, the Reference Term determines the conduction of blocking tests for ten (10) cases for each criterion.

However, we did not find enough cases of non-compliance according to the list of workers found in conditions analogous to slavery (MTE and Transparency List) to form this sample. For this reason, we tested:

- Ten (10) cases randomly selected, by means of the statistical software, for IBAMA’s criterion;
- Three (03) cases for the Transparency List’s criterion; and
- Ten (10) cases randomly selected, by means of the statistical software, for the list of geospatial monitoring.

The test of blocking suppliers and all their properties was conducted by cattle purchasers of each unit responsible for the purchases from the selected suppliers, via remote access from Barretos’ unit, and observed by BDO team and by the Sustainability team of Minerva on June 08 and 09, 2016. The purchasers simulated purchases from all properties included in the blacklist, according to the sample.

The result of the test was that all properties embargoed according to IBAMA and MTE criteria were blocked for purchases, so when trying to conclude the purchase pre-order, the system shows a message invalidating the issue, informing that the property is included in the blacklist and preventing the purchase process to continue.

When testing blocking of owners included in the geospatial monitoring list, three (03) were authorized for purchase. In one (01) case the authorization occurred to allow purchase from another farm from that supplier, as the property met the criteria (not included in IBAMA and MTE lists, no deforestation, invasion of indigenous land and conservation unit) on the date of the test, as checked in Minerva’s system. And in two (02) cases, we have found that the suppliers were removed from the list of Unauthorized by PRODES in December 2015, so that on the date of the blocking tests, the properties were classified as Authorized for purchases, meeting the regularity criteria established by the Company.

As indicated above, in cases where a supplier is blocked for being included in IBAMA list or in the geomonitoring list, it is possible to unblock the property that has no embargo or irregularities found by the geomonitoring company (deforestation, overlapping with indigenous land or conservation units) for three (03) to fifteen (15) days, as from the day before slaughter. After this period, is no longer possible to negotiate with that supplier, and unblocking has to be requested again for new purchases.

In cases where an owner is blocked for being on the MTE list, it is impossible to make purchases from any of his/her properties, as the owner's CPF/CNPJ and all properties owned by him/her are blocked.

## **Stage 2 - Hired geomonitoring company (Apoio Consultoria)**

### **Step 1 - Verification procedures**

*“To describe briefly how the outsourced geomonitoring company's procedures for inputs into the slaughterhouses' purchase systems were assessed, and what documents were examined to ensure the integrity of the outsourced company's processes”.*

(Extract from TdR)

To execute this step of the work, the Reference Term demands that the auditing firm review the procedures adopted by the hired geomonitoring company, ensuring the integrity and transparency of the process to prepare and update geographical information to feed the systems of purchase and blocking purchases.

Therefore, it was requested for the audit to verify whether the geomonitoring company is duly empowered to carry out the activities, considering the corporate purpose, the Brazilian Classification of Economic Activities (CNAE), Technical Responsibility at the Regional Council of Engineering, Architecture and Agronomy (CREA), and checking the experience of the professionals involved.

To this end, the following documents indicating the integrity and competence of Apoio Consultoria were delivered:

- Proof of Enrollment and Registration Status on Brazilian IRS issued on June 10, 2016 at 09:27 a.m.;
- Document named Technical Responsibility Note (ART) issued by CREA-PA signed by the technician in charge on June 06, 2016;
- Articles of Organization and Bylaws of the hired geomonitoring company signed on July 04, 2013, first amendment of the Articles of Organization and Bylaws of NicePlanet Apoio Administrativo Ltda., signed on December 20, 2013, and 2nd Amendment to its Bylaws signed on February 03, 2015;
- Mini résumé of all professionals from Apoio Consultoria, attesting their experience and technical skills.

The documentation on the project was also requested, with the scope of activities, operational plan, and technical description report including the procedures for access, treatment and use of the databases referring to the criteria used in the social and environmental analyses. Based on this request, Apoio Consultoria sent to the audit a document named “Social and Environmental Monitoring Operating Procedures SMBA” which includes the technical details of the products generated by the outsourced geomonitoring company, as described in item “IV) Description of the Company and of the cattle purchasing process in respect to the Public Commitment on Livestock” of the present report.

The monitoring criterias were evaluated by the demonstration of the procedures for checking and monitoring the suppliers in the system of the geomonitoring company at Minerva’s head office, in Barretos, and by checking the Technical Description Report of the Monitoring Process.

At the demonstration of the system, one of the partners of Apoio Consultoria was at Minerva’s head office, to show and explain in details the procedures they follow to monitor the suppliers. Technical explanations were given, as already mentioned in this Report, and some simulations of monitoring of suppliers Unauthorized and Authorized in 2015 were carried out to present how the monitoring is performed, as described next in Step 2 - Simulation of monitoring.

As previously mentioned, the analysis of deforestation happens in two different moments: upon the registry of the property and on purchase. Deforestation can be confirmed from both PRODES and DETER, although PRODES offers a more precise verification. In both cases (PRODES and DETER), the respective files to check deforestation are overlaid, however, in PRODES, if overlapping is identified, the perimeter goes through multi-temporal analysis and, if deforestation is confirmed, the property is classified as “Unauthorized”.

If mentioned in PRODES, with no confirmation through the multi-temporal analysis, the property will be classified as “requiring attention” for later analysis by the Sustainability and Legal Departments. In the case of DETER, if deforestation is found, the property will be classified as “requiring attention” until the deforestation can be proved by satellite images after the date of disclosure of DETER information. If deforestation is not confirmed through analyses of satellite images from later dates, the property will be classified as “Authorized”, as those with no evidence of deforestation.

As informed by the company hired for conducting the geospatial monitoring and established in the document “Social and Environmental Monitoring Operating Procedures SMBA”, there is a period of up to fifteen (15) business days for the hired company to update its database after the official disclosure of PRODES and DETER data by INPE.

As previously mentioned in this Report, the geomonitoring company is responsible for verifying if the property is not located in Indigenous land and/or Conservation units.

Regarding the analysis of overlapping with Indigenous land, the official files from FUNAI are overlapped with the perimeters of Minerva's supplier properties. If no invasion of Indigenous land is found, the property is classified as "Authorized"; however, if found that the property is included in Indigenous land, except those yet under study, they will be classified as "Unauthorized" and included in the "blacklist".

As for Conservation units, the official files of the Ministry of Environment are overlapped with the perimeters of the supplier properties and, if no match is found with any Conservation unit, the property is classified as "Authorized", otherwise as "Unauthorized". Other protected areas are registered as "requiring attention" and then blocked to be verified by the Sustainability and Legal Departments of Minerva. If a valid license and/or official document exists, the property may be authorized. If there is no supporting documentation, the property is classified as "Unauthorized".

We point out that for both cases of overlapping with Conservation units and Indigenous land, there is a tolerance level of up to 10% overlap of the property total area on any Conservation unit or Indigenous land.

## Step 2 - Simulation of monitoring

*"To describe briefly the methods used to select samples and the procedures followed for simulating monitoring for each criterion, how cases were simulated and the results obtained".*

(Extract from TdR)

To perform this step of the work, one of the partners of Apoio Consultoria made a presentation to the audit team at Minerva's head office in Barretos, state of Sao Paulo, describing and demonstrating the monitoring procedures, which have already been exposed in this Report. In addition, they simulated cases of unauthorized and authorized suppliers, randomly selected by the audit team.

The TdR requires that ten (10) cases be simulated for each of the monitoring criteria (deforestation, invasion of conservation units and invasion of indigenous land) tested by the geomonitoring company for Minerva. The simulation should be carried out for both blocked and released suppliers, totaling thirty (30) properties tested.

As the TdR does not explain what criteria to use for selecting this sample, in order to guarantee randomness of the sample, thirty (30) properties were selected using statistical software for the simulation of monitoring from the complete GEO list sent by Apoio Consultoria, with properties Authorized for purchases, as well as Unauthorized, and with the whole history of monitoring conducted in 2015.

The result of this random selection was a sample with twenty-seven (27) properties with the monitoring analysis resulting in the status of Authorized for purchases, and three (03) properties in which the analysis resulted in the status of Unauthorized for purchases by PRODES deforestation criterion.

To test the monitoring conducted by Apoio Consultoria from the sample of thirty (30) properties, the audit selected ten (10) properties to check monitoring of the deforestation criterion, ten (10) properties to test monitoring of the criterion of invasion of conservation units, and ten (10) properties to test monitoring of the criterion of invasion of indigenous land.

Despite focusing on the analysis of the criteria required by the TdR, as referred to above, each of the thirty (30) cases was checked regarding the complete analysis made by Apoio Consultoria, which includes the three (03) criteria (deforestation, invasion of conservation units and invasion of indigenous land), besides other analyses that may generate blocking of purchases, or classification of the owner as Requiring Attention, such as: presentation of inconsistent data by the owner, inexistence of pasture area in the property and perimeter larger than 3 thousand hectares, with no provision of the LAR document.

The result of the simulation of monitoring for each of the criteria is as follows:

- **Deforestation:** As result of the simulation upon the monitoring of the deforestation criteria, we have found that from the ten (10) properties selected for analysis, all were authorized for purchases, with no presence of deforestation. Only in one (01) of the cases, the property was included in PRODES 2009, however with Julday (Julian days) referring to the date previous to October 05, 2009 (Greenpeace Agreement) and there was no increase in deforestation in the following years, which does not block the property for purchases;
- **Conservation units:** Regarding the simulation upon the criteria of monitoring the invasion of conservation units, we have found that none of the ten (10) properties selected overlaps conservation units by more than 10% of the total area of the property, with no cases of non-compliance found. In two (02) cases, the property was classified as Unauthorized and blocked for purchases by PRODES, however, there was no overlapping with conservation units;

- **Indigenous land:** Regarding the simulation upon the monitoring of invasion on indigenous land criteria, we have found that none of the ten (10) properties selected overlaps indigenous land by more than 10% of the total area of the property, which does not characterize classification as Unauthorized for purchases. Only in one (01) of the cases, the property was Unauthorized for purchase due to deforestation by PRODES. In one (01) of the cases, the property was Authorized for purchases, with no indication of invasion of indigenous land, however, overlapping by more than 10% of its total area a Conservation Unit of Sustainable Use, in which the use of the land is permitted through the adoption of adequate handling and conservation techniques. According to orientation from the Federal Public Prosecution Office, overlapping with the mentioned conservation unit is authorized for trading. There was another case in which the property shows no overlapping with indigenous land, but has more than 50% of its area in a State Conservation Unit in Tocantins. For this case, a document issued by the Municipal Environment Department authorizing trading inside the conservation unit was provided.

In all thirty (30) simulations, Apoio Consultoria generated maps with polygon shapes of the perimeters in the supplier property and print screens of the system tabs showing the information on the suppliers, property and monitoring requests submitted by Minerva in 2015, confirming that the monitoring is requested for all purchases.

Additionally, the Monitoring Certificate and additional documents were provided when requested by audit.

After the realization of this step of the work, by professional judgment, the audit team decided to select other two (02) properties to test the complete monitoring of Apoio Consultoria, whose details will be sent to the Company, in an Internal Report, as such tests are not included in Work Steps required by TdR.

The simulations carried out and the documents sent prove the effectiveness of the monitoring conducted by Apoio Consultoria inside the Amazon Biome, aiming to guarantee that no purchases are made from properties involved in deforestation and overlapping conservation units or indigenous land by more than 10% of its total area.

### **Step 3 - Assessment of documents for property title and environmental compliance**

*“To describe briefly the methodology for selection of the sample, and how the documents were analyzed, indicating discrepancies and agreements”.*

(Extract from TdR)

To generate the samples referring to property title and environmental compliance, twenty-five (25) purchases were randomly selected for each criterion (CAR, LAR, and Property Title Compliance), by means of statistical software, which is a sufficient number to reduce the sampling risk to an acceptable level of reliability, as set forth in NBC TA 530 - Audit Sampling.

Only the processes of suppliers from Pará were considered in the sample of LAR documentation, where this document is mandatory.

Accordingly, for environmental compliance CAR and LAR documents were analyzed as follows:

- CAR: Twenty-five (25) sample purchases;
- LAR: Twenty-five (25) sample purchases.

Concerning the analysis of the documents CAR and LAR, we have found that for the state of Pará, twenty-five (25) of the properties have the CAR document attached to the purchase and registry in Minerva's system, and the properties with more than three thousand (3,000) hectares have the LAR attached to the purchase and registry. Properties smaller than three thousand (3,000) hectares are not obliged to issue the LAR pursuant to Regulatory Instruction No. 14/2011.

When checking the CAR number on the website of the Environment Department of each state, we have found that:

- In one (01) sample item, the CAR was found with a number different from the one described in the system, due to an updating to the national model;
- In the other twenty-four (24) sample items, the documents are updated according to the information from SEMA.

When checking the LAR number on the website of the Environment Department of the state of Pará, we have found that:

- On twenty-three (23) items, the properties have no LAR document, as the area is smaller than three thousand (3,000) hectares;
- In two (02) processes of the sample, the "History of progress of proceeding" in Minerva's system, confirming that the property already started the process to issue the LAR.

These inconsistencies related to CAR and LAR occur because the property documentation is updated only when a new purchase is made, so between the date of the last purchase and the audit, the database of the State Department of Environment may be changed, and the new information not yet passed by the supplier to Minerva, or even because the SEMA's database do not maintain a multi-temporal registry, with the history of cancelled documents (CAR and LAR) maintained on the website.

Aiming compliance with the requirements of the public undertaking to confirm the legality of property title documents, twenty-five (25) purchases from the total sample were selected using the statistical software for checking property data in INCRA's website and Minerva's system.

As a result of this consultation and found in INCRA's website and Minerva's system:

- Nine (09) items have CCIR expired in the registry because the document is only provided upon the registry in the system, being updated only when the owner separates, leases, mortgages, sells, or makes a commitment of sale of the property;
- Two (02) properties are registered on the name of other owner in CCIR document, for being leased properties;
- In fourteen (14) sample items, the property data are in compliance, validated by CCIR or by the real estate registry.

Referring to the expired CCIRs, this cannot be characterized as non-compliance, because the document is only checked by Minerva upon the register of the supplier, in order to prove the inexistence of invasion, land grabbing or any type of agrarian conflict. According to information available in INCRA's website, the CCIR is issued as proof of registry of the rural property, being necessary to separate, lease, mortgage, sell or make a commitment of sale of the rural property and for the approval of voluntary partition or distribution (succession) according to paragraphs 1 and 2, article 22, of Law No. 4.947 of April 6, 1966, modified by article 1, of Law No. 10.267 of August 28, 2001. The data included in CCIR are exclusive for registry purposes, not to legitimate ownership, as set forth in sole paragraph, article 3, of Law No. 5.868 of December 12, 1972. The CCIR is also essential for the granting of rural credit, required by banks and financial agents ("[http://www.incra.gov.br/sncr\\_ccir](http://www.incra.gov.br/sncr_ccir)").

Likewise, as with CAR and LAR, the inconsistencies related to CCIR occur because the property documentation is updated only when a new purchase is made. Also, as in SEMA's website, INCRA's website keeps no history of the issue and regularity of the CCIRs, and Minerva does not use only the CCIR for property title confirmation, which prevents checking the regularity of the document in the moment the audit is conducted.

## VI) Results of the audit process

*“On the basis of the procedures applied, state whether any purchase transaction was identified that does not meet all the points of the public undertaking, indicating the root cause of non-compliance with the Minimum Criteria”.*

*“For the “Traceability system for indirect suppliers” criterion, give brief details of the procedures applied to verify this item. “If the company does not show that there is control of the entire production chain (indirect suppliers - cattle raising and breeding), the criterion should be marked as non-compliant”.*

(Extracts from TdR)

Based on the procedures adopted, no purchase was identified not meeting all the points of the public undertaking, which are: purchase from IBAMA embargoed areas, purchase from areas overlapping conservation units or indigenous land, from deforested areas, or from suppliers listed in MTE list of slave labor and in the Transparency List.

Analyzing the registry documents, that do not imply irregularity regarding the public undertaking criteria, Purchase Orders, Invoices, and GTAs, we have found some divergences that were justified by Minerva's Sustainability team. We point out that twenty-five (25) processes from each unit of the sample, randomly selected by means of the statistical software were analyzed.

Following is the result of our analyses:

- In seven (07) items of the sample, a cancelled invoice was registered in the system, so we received substitute invoices for each of the cases;
- In four (04) items, there is a divergence in the name of the property, which occurred because the system was not integrated at the time of the registry of the cattle raiser and the information was manually input in the system;
- In five (05) processes from the state of Mato Grosso, the producer's invoices provided were from another property, but in the same municipality. This was justified because according to Ordinance No. 005/2014- SEFAZ, article 3 "the owner of more than one property in the state is not allowed to use one single state registry", that is, the same sequence of invoices for the properties; and
- The remaining items are compliant.

Regarding property title and environmental compliance, similarly to CAR and LAR, the inconsistencies related to CCIR occur because the property documentation is updated only when a new purchase is made. Also, as in SEMA's website, INCRA's website keeps no history of the issue and regularity of the CCIR, which prevents checking the regularity of the document in the moment the audit is conducted. Inconsistencies related to the crosschecking of IBAMA, MTE, and the geomonitoring lists have already been listed in this report, in previous items.

Concerning the "MINIMUM CRITERIA FOR INDUSTRIAL-SCALE OPERATIONS WITH CATTLE AND BEEF PRODUCTS IN THE AMAZON BIOME", according to information available in the website of the National Pact for the Eradication of Slave Labor, Minerva is a signatory since 05/19/2009.

Concerning rejection on land grabbing and agrarian violence, Minerva must block in its list of direct or indirect suppliers, after unmistakable proof of the situation by means of notices sent by the MPF, those producers accused of land fraud by the Public Prosecution Office or by Federal or State Land Institutes, or provably involved in provoking land conflicts based on accusations of the Public Prosecution Office. However, Minerva informed us that it had received no notifications of such cases from the MPF in 2015.

Additionally, in regard to the Minimum Criteria, the Company informs its suppliers of all minimum requirements necessary to become a supplier of Minerva, and that those not meeting these criteria will no longer be accepted as suppliers, by means of events organized in rural areas, called "Talking about Cattle Farming", and through the Company's website and official documents, such as the Reference Document.

As for the traceability system for indirect suppliers, the criterion must be considered non-compliant, given that Minerva still does not have procedures to monitor the indirect suppliers' chain. We point out that the monitoring of indirect suppliers requires support and investments from the government in technologies that promote the traceability of cattle from birth to slaughter. This is particularly important in small properties, where few resources are available for investment in this type of technology.

In regard to Minerva's Working Plan, the Company will disclose the document containing the Minimum Criteria for Industrial-Scale Operations with Cattle and Beef Products in the Amazon Biome. It is noteworthy that the Working Plan is not part of BDO team check scope, in accordance with the Reference Term. Therefore, the audit team only received the document and included its content in the present Report, but did not conduct any analysis or verification of such content.

The table below shows the criteria, status of each criterion, target for meeting the criterion, the actions and deadlines for each criterion:

**MINIMUM CRITERIA FOR INDUSTRIAL-SCALE OPERATIONS WITH CATTLE AND BEEF PRODUCTS IN THE AMAZON BIOME**

Criteria	Status	Action Plan (Improvements)		
		Targets	Actions	Deadline
<p><b>1. ZERO DEFORESTATION IN SUPPLY CHAIN</b></p> <p>No new occurrence of deforestation for cattle raising purposes will be accepted after October 05, 2020.</p> <p>(DIRECT SUPPLIERS)</p>	<p>Minerva monitors 100% of its cattle purchases in the Amazon Biome, whether through the map of properties or through georeferenced coordinates. In 2015, we increased the number of properties with defined polygons, generated according to official documents, from 85.3% to 92.9%.</p>	<p>100% of the cattle supplier farms inside the Amazon Biome with georeferenced perimeter.</p>	<p>Expand the field collection of documentation and geographic coordinates for mapping of Minerva's supplier farms inside the Amazon Biome, in addition to maps provided for by CMTs. Strengthen the actions of Minerva's expansion fostering the sustainable cattle raising within the Brazilian production chain.</p>	<p>12/31/2017 (official deadline for CAR Nacional) www.car.gov.br</p>
<p><b>1.1. ZERO DEFORESTATION IN SUPPLY CHAIN</b></p> <p>No new occurrence of deforestation for cattle raising purposes will be accepted after October 05, 2020.</p> <p>(INDIRECT SUPPLIERS)</p>	<p>Because there are no public or private means to monitor indirect suppliers, this item has not yet been started. The articulation established in the 2015 Action Plan was achieved through a proactive participation in events throughout the country, formation of the steering board of the Work Group on Sustainable Livestock Practices, and participation in sector meetings to discuss and articulate the issue.</p>	<p>Search sectorial solutions for the issue of monitoring of indirect suppliers and work towards the standardization of procedures.</p>	<p>Expand the positive agenda to other stakeholders of the Brazilian Agricultural Industry for discussing the challenges of monitoring of indirect suppliers, through OTPS, for the involvement of other industries and players in the discussion and direction of the issue.</p>	<p>12/31/2017</p>
<p><b>2. REJECTION TO INVASION OF INDIGENOUS LAND AND PROTECTED AREAS</b></p> <p>The Company and its products shall be exempt from involvement in invasions of indigenous people's territory and areas protected by federal, state or municipal laws.</p>	<p>Minerva monitors 100% of its cattle purchases in the Amazon Biome, whether through the map of properties or through georeferenced coordinates. In 2015, we increased the number of properties with defined polygons, generated according to official documents, from 85.3% to 92.9%. Additionally, the Company regularly sends official letters to the competent bodies, such as INCRA, FUNAI and ICMBio, about suppliers in non-compliance with the criteria herein laid down. 19 letters were sent to the regional coordination offices, and the Company received 8 replies informing that there is no case of invasion that may compromise the commitments made.</p>	<p>100% of the cattle supplier farms inside the Amazon Biome with georeferenced perimeter.</p>	<p>Expand the field collection of documentation and geographic coordinates for mapping of Minerva's supplier farms inside the Amazon Biome, in addition to maps provided for by CMTs. Strengthen the actions of Minerva's expansion fostering the sustainable cattle raising within the Brazilian production chain, particularly in the Intersectoral Articulation Center for "Guidelines on Corporate Good Practices with Indigenous People".</p>	<p>12/31/2017 (official deadline for CAR Nacional) www.car.gov.br</p>
<p><b>3. REJECTION TO SLAVE WORK</b></p> <p>The Company shall sign and strictly comply with the National Pact for the Eradication of Slave Labor.</p>	<p>Minerva is a signatory to the National Pact for the Eradication of Slave Labor (InPacto) and monitors all purchases made by the Company using the "Black List of Slave Work", from the Ministry of Labor and Employment (MTE) due to the transparency law, in Minerva's blocking system.</p>	<p>Raising awareness of Minerva's suppliers on work conditions analogous to slavery in the events held by the Company. Participation in sectorial discussions on the issue for the improvement of processes and governance.</p>	<p>Expand the positive agenda of participation in InPacto for improving the availability of MTE official data.</p>	<p>N/A</p>
<p><b>4. REJECTION TO LAND GRABBING AND AGRARIAN VIOLENCE</b></p> <p>The Company will exclude from its list of direct or indirect suppliers, after unmistakable proof of the situation by the COMPANY, those producers accused of land grabbing by the Public Prosecution Office or by Federal or State Land Institutes, or provably involved in provoking land conflicts based on accusations of the Public Prosecution Office. The return of the supplier to the Company's list shall happen after a Conduct Adjustment Agreement (TAC) is entered into or the accusation is dismissed.</p>	<p>Because there are no public or private means to monitor direct and indirect suppliers involved in land grabbing and agrarian violence, the Company regularly sends letters to the competent bodies to gather official information on land grabbing and agrarian violence. The actions established in the 2015 Action Plan were performed through the participation in IBAMA Work Group and formation of the steering board of the Work Group on Sustainable Livestock Practices.</p>	<p>Participation in intersectoral events on the issue to promote the creation of means for monitoring.</p>	<p>Continue to regularly send letters to the competent bodies for collecting official information on suppliers accused of land grabbing and agrarian violence. Strengthen the actions of Minerva's expansion fostering the sustainable cattle raising within the Brazilian production chain. Bring the issue up for sectorial discussions.</p>	<p>N/A</p>
<p><b>5. PRODUCTION TRACEABILITY SYSTEM VERIFIABLE, REPORTABLE AND ABLE TO BE MONITORED</b></p> <p>Cattle and beef products can only be supplied by farms or groups formally committed with the adoption of a reliable traceability system which, in addition to the current demands, include clear environmental requirements intended to eliminate deforestation.</p>	<p>Because there is no reliable traceability system including clear environmental requirements intended to eliminate deforestation inside the Amazon Biome, whether public or private, this item has not yet been started.</p>	<p>Contribute to the creation of a traceability system with social and environmental purposes for the sector.</p>	<p>Increase the participation in sectorial discussions about environmental traceability for the Brazilian livestock production chain.</p>	<p>N/A</p>

## 1. Access to Information

*“To give a brief description about the conditions of access to information essential for proving the company’s compliance with the Minimum Criteria. Complete Table 1, identifying all the documents analyzed and giving references (date or code and version)”.*

(Extract from TdR)

Minerva made available all the documents and information requested by the BDO team to perform the work.

It was possible to access the purchase, registry and monitoring systems of Minerva, and to have access to all documents requested related to the purchase sample.

Additionally, the people responsible for the information needed to understand the processes and to clear up doubts were available to BDO team.

The table below includes the information necessary for our analyses and the period covered:

**Table 1 - Checklist of documents analyzed**

Document name	Date of coverage / code and version	Checked (Y/N)
Working Plan	Disclosed by the Company along with this Report	N
Procedures	For the period from 01/01/2015 to 12/31/2015	Y
Registers	For the period from 01/01/2015 to 12/31/2015	Y
Monitoring system	For the period from 01/01/2015 to 12/31/2015	Y
Blocking system	For the period from 01/01/2015 to 12/31/2015	Y
List of suppliers	All suppliers located in the Amazon Biome, for the period from 01/01/2015 to 12/31/2015	Y
Public list of embargoed properties - IBAMA	List Downloaded on 05/18/2016 ( <a href="http://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php">http://servicos.ibama.gov.br/ctf/publico/areasembargadas/ConsultaPublicaAreasEmbargadas.php</a> )	Y
Public list of individuals/companies - slave labor - MTE	The list was made available by the Sustainability team of Minerva, given that it is no longer available for download on MTE website	Y
Transparency List on Slave Labor	List downloaded in January 2016 and confirmation of no alterations on 05/18/2016 ( <a href="http://reporterbrasil.org.br/2015/09/lista-de-transparencia-sobre-trabalho-escravo-traz-nomes-flagrados-por-esse-crime/">http://reporterbrasil.org.br/2015/09/lista-de-transparencia-sobre-trabalho-escravo-traz-nomes-flagrados-por-esse-crime/</a> )	Y
List of Blocked Suppliers - Geo	Download of the list made by Apoio Consultoria on 06/08/2016, observed by BDO	Y

## 2. Exceptions

*“The audit company must show clear evidence of exceptions, describing the problem and taking concrete facts into account, so that the report may serve as a tool for continuing improvement in the company’s purchase system”.*

(Extract from TdR)

Except for the criterion “Traceability system for indirect suppliers”, because the Company still does not have procedures for controlling the entire production chain (cattle raising and breeding properties), there has been no other non-compliant cases confirmed in the present work. The other irregularities found were justified by Minerva and adjusted in the system, if necessary. Details of these cases are given in the body of this Report.

## VII) Audit Limitations

*“If the auditor finds any difficulties or restrictions, this should be noted in the report”.*

(Extract from TdR)

The scope of our work was defined to permit us to obtain an adequate degree of assurance, and includes the assessment of compliance regarding the adoption of the “Minimum Criteria for Industrial-Scale Operations with Cattle and Beef Products in the Amazon Biome”, included in the Reference Term, for the period from 01/01/2015 to 12/31/2015.

Our report is for the sole purpose described above and it should not be used for any other purpose or distributed to third parties who have not taken responsibility for the sufficiency of or have not agreed with the mentioned procedures. This report is related exclusively to the items specified in the “Minimum Criteria for Industrial-Scale Operations with Cattle and Beef Products in the Amazon Biome”, and does not cover the financial statements of Minerva taken as a whole.

More details are given in our report on recommendations for Agreed-upon Procedures, in accordance with NBC TSC Standard 4400, approved by CFC Resolution No. 1.277/10, which will be delivered to Minerva. Only Minerva may pass it on to other parties as it deems necessary.

Considering that the mentioned procedures are not an audit or limited review conducted in accordance with auditing or review standards applicable in Brazil, we do not provide any assurance on cattle purchases for the period from 01/01/2015 to 12/31/2015, or on the effectiveness of Minerva’s internal controls relating to such processes.

If we had applied additional procedures or made an audit or review of financial statements in accordance with Brazilian auditing or review standards (NBC TAs or NBC TRs), we could have been aware of other important issues, which would have been reported.

## VIII) Conclusions

*“Give your conclusion on the results shown, identifying any evidence found that the undertakings assumed have not been fulfilled. The conclusion should contain an annual assessment of direct cattle purchases, according to the undertaking”.*

(Extract from TdR)

Based on our work, as described in this Report, except for the criterion “Traceability system for indirect suppliers”, given that the Company still does not have procedures for controlling the entire production chain (cattle raising and breeding properties), our analyses did not indicate any inconsistencies that could not be justified by Minerva. Further information will be available in the Report on Recommendation for Agreed-upon Procedures held by Minerva.

Sao Paulo, July 14, 2016.



**BDO RCS Auditores Independentes SS**  
**CRC 2 SP 013846/O-1**



**Mauro de Almeida Ambrósio**  
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**Viviane Alves Bauer**  
**Accountant CRC 1 SP 253472/O-2**

## APPENDIX

**Table 1 - Total purchases and sampling in base year**

**1 - Total purchases and sampling (base year)**

Total cattle purchase operations originally from the Amazon Biome region conducted by Minerva from January 1 to December 31, 2015.	Total cattle purchase operations sampled to perform the presented analyses.
12,252	1,226

**Table 2 - Non-conformities found in the audited period**

**2 - Non-conformities (base year)**

Cattle purchases originating from:	Total purchases in non-compliance	% of purchases in non-compliance in relation to the totality of cattle purchases in the year in the Amazon Biome	% of purchases in non-compliance in relation to the totality of cattle purchases sampled
Properties where deforestation was identified after Oct/2009	-	-	-
Properties where invasion of Indigenous Land was identified	-	-	-
Properties blocked for being located in Conservation Units	-	-	-
Properties blocked for being included in the list of MTE and Transparency List	-	-	-
Properties blocked for being included in the public list of IBAMA	-	-	-

**Table 3 - Results of the blocking test**

**3 - Blocking Test**

	Total number of simulation tests of cattle purchase in the Company's system	In accordance	Not in accordance
IBAMA	10	10	-
MTE	3	3	-
GEO (PRODES, DETER, Indigenous Land and Conservation Unit)	10	10	-