



Voluntary Carbon Standard Version 2007.1

Project-No: OS 5838 09/128

Verification Report:

Name of Verification company:	Date of the issue:																																								
TÜV NORD CERT GmbH	May 22 nd , 2009																																								
Report Title:	Approved by:																																								
Final Verification Report ARGIBEM, SAO SEBASTIAO AND VULCAO CERAMIC	Mr. Eric Krupp																																								
Client:	Project Title:																																								
Carbono Social Serviços Ambientais Ltda	"ARGIBEM, SAO SEBASTIAO AND VULCAO CERAMIC SWITCHING FUEL PROJECT"																																								
Summary:																																									
Carbono Social Serviços Ambientais Ltda has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "ARGIBEM, SAO SEBASTIAO AND VULCAO CERAMICS SWITCHING FUEL PROJECT", with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to switching from fossil fuel to renewable biomass fuel for end-user thermal energy generation. This verification covers the period from 2006-04-01 to 2008-09-30 (including both days). In the course of the verification 5 Corrective Action Requests (CAR) and 0 Clarification Request (CR) were raised and successfully closed. Furthermore 0 FARs are raised to improve the monitoring system in the future. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the VCS PD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant. As a result of this verification, the verifier confirms that: - all operations of the project are implemented and installed as planned and described in the validated project design document. - the monitoring plan is in accordance with the applied approved CDM methodology, AMS-I.C.: Thermal energy for the user with or without electricity – Version 13 from March 14th 2008. - the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately. - the monitoring system is in place and functional. The project has generated GHG emission reductions. As the result of the 1st periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:																																									
<table border="1"> <thead> <tr> <th>Emission reductions:</th><th>CO₂ [t CO₂]</th><th>CH₄ [t CH₄]</th><th>N₂O [t N₂O]</th><th>HFCs [t HFC]</th><th>PFCs [t PFC]</th><th>SF₆ [t SF₆]</th><th>Sum [t CO₂e]</th></tr> </thead> <tbody> <tr> <td>2006</td><td>12,787</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>12,787</td></tr> <tr> <td>2007</td><td>17,380</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>17,380</td></tr> <tr> <td>2008</td><td>14,879</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>14,879</td></tr> <tr> <td>TOTAL:</td><td></td><td></td><td></td><td></td><td></td><td></td><td>45,046</td></tr> </tbody> </table>		Emission reductions:	CO ₂ [t CO ₂]	CH ₄ [t CH ₄]	N ₂ O [t N ₂ O]	HFCs [t HFC]	PFCs [t PFC]	SF ₆ [t SF ₆]	Sum [t CO ₂ e]	2006	12,787	-	-	-	-	-	12,787	2007	17,380	-	-	-	-	-	17,380	2008	14,879	-	-	-	-	-	14,879	TOTAL:							45,046
Emission reductions:	CO ₂ [t CO ₂]	CH ₄ [t CH ₄]	N ₂ O [t N ₂ O]	HFCs [t HFC]	PFCs [t PFC]	SF ₆ [t SF ₆]	Sum [t CO ₂ e]																																		
2006	12,787	-	-	-	-	-	12,787																																		
2007	17,380	-	-	-	-	-	17,380																																		
2008	14,879	-	-	-	-	-	14,879																																		
TOTAL:							45,046																																		
Work carried out by:	Number of pages:																																								
Maria Cláudia Martinelli Trabulsi Diogo Ladvocat Negrão Couto Rainer Winter (TL) Alexandra Nebel (TR)	15																																								

Table of Contents

1	Introduction	3
1.1	Objective	3
1.2	Scope and Criteria	3
1.3	VCS project Description	3
1.4	Level of assurance	4
2	Methodology	4
3	Verification Findings	5
3.1	Remaining issues, including any material discrepancy, from previous verification	5
3.2	Project Implementation	5
3.3	Completeness of Monitoring	7
3.4	Accuracy of Emission Reduction Calculations	9
3.5	Quality of Evidence to Determine Emission Reductions	9
3.6	Management and Operational System	9
4	Verification conclusion	10
5	References	11

1 Introduction

1.1 Objective

The purpose of this verification, by independent checking of objective evidence, is as follows:

- to verify that the project is implemented as described in the project design document;
- to confirm that the monitoring system is implemented and fully functional to generate voluntary carbon units (VCUs) without any double counting, and
- to establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

The verification of this VCS project is based on the VCS project description^{/VCS PD/}, the monitoring report^{/MR/}, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The TÜV NORD JI/CDM CP has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

1.3 VCS project Description

This project comprises three ceramics in the State of Rio de Janeiro: Argibem, located in Bem Posta (Três Rios District), Sao Sebastiao in Barra do Piraí and Vulcao in Queimados, which produce red ceramic devices. The project activity involves fuel switching from heavy oil to renewable biomass coming from wood residues, wood from afforestation and sawdust; thus GHG emission reduction is achieved. Other types of renewable sources of biomass can be applied during the project activity, as elephant grass coming from grassland in abandoned areas.

Before the replacement of the biomass, Argibem produced 19,200,000 devices per year and it consumed 1,877,000 liters per year, Sao Sebastiao produced 7,200,000 and consumed 1,440,000 liters and Vulcao produced 11,400,000 devices and it consumed 1,440,000 liters of oil per year in their "Tunnel", "Hoffman" and "Hoffman" kiln respectively.

The total replacement occurred in April 2006, and now, Argibem, Sao Sebastiao and Vulcao are using their kilns to produce 2,000,000, 600,000, and 1,600,000 ceramic devices and consuming 530, 155, 510 tonnes of renewable biomass per month, respectively.

Due to the project activity investments were necessary to maintain the facility productions, such as: new mechanical burners to feed the kilns, alterations in the kilns

to use the new biomass (the pipelines and the injectors were deactivated), construction of sheds to store the renewable biomass and staff training regarding the new fuel adoption.

The project contributes to the sustainable development as due to its activity it will: diversify and improve sources of thermal energy generation, make possible new renewable biomass thermal energy generation technologies to be applied in the ceramic sector or other similar process, reuse biomass waste material, utilize renewable sources of biomass for thermal energy generation and contributes to petrol reserves.

The estimated annual GHG emission reduction is 20,818 tCO₂e during the 10 years of the project activity, two times renewable.

1.4 Level of assurance

The verification report is based on VCS PD, monitoring report, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. The verification opinion is assured provided the credibility of all above.

2 Methodology

The verification of the project was carried out on November 2008.

Preparations: 2008-09-04 to 2008-09-14

On-site visit: 2008-09-23 (Sao Sebastiao), 2008-09-22 (Argibem) and
2008-09-15 (Vulcao)

Draft Reporting: 2009-03-06

(Final) Reporting: 2009-05-22

The verification consisted of the following steps:

- A desk review of the VCS PD^{/PD/} and supporting documents with the use of the relevant sections of a customised protocol according to the VCS 2007.1;
- A desk review of the Monitoring Report^{/MR/} and additional supporting documents which the client submitted. The relevant sections of the above-mentioned customised protocol according to the VCS 2007.1 were used.
- Verification audit planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer,
- Verification reporting (Draft Verification Report and Final Verification Report).

The criteria of this verification include the relevant rules and steps as set out in the VCS.

3 Verification Findings

3.1 Remaining issues, including any material discrepancy, from previous validation

There are no pending issues raised during the validation process. This is the first period of verification, thus there is no pending issued from previous verification.

Nevertheless, 1 FAR was raised:

FAR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
FAR 1 During the next verification it shall be monitored the efficiency gain/loss and biomass use due to the new kiln that is planned to be build at the end of 2009.	Monitoring Report and VCS PD	It was included in the VCS PD (section 1.9 and section 3.3 – tables BFy and Qrenbiomass) and in the MR (tables BFy and Qrenbiomass) that when the “Tunnel” kiln be operating, it will be monitored the efficiency gain/loss and biomass use in the proper monitoring report.	Monitoring Report and VCS PD	OK. The information was added in the referred sections and must be checked during the next verification period.

3.2 Project Implementation

The project consists of the fuel switching in the ceramic facility, with the substitution of unsustainable native firewood to sawdust, sugar cane bagasse and peanut shell. For the project implementation the ceramic owner had to deal with different kind of difficulties, such as:

- Technological
 - Kilns adjustment – As the kilns are now fed with mechanical burners, adjustments in the kilns entrances were necessary to the correct fit of the machinery. Without the adjustments a significant loss of thermal energy would occur. The adjustments could be evidenced during the On-site visit as well as the invoices and sales receipts^{/FAE/}

- Use of the new mechanical burners – The ceramics had to learn how to manage the new machinery to get the most efficient activity. It could be evidenced during the On-site visit that the ceramists experiences some difficulties with the equipments as maintenance. Moreover it was necessary to train the staff responsible for the kiln feeding^{/IMO1/}
 - Use of the new fuel – During the fuel switching the ceramics facility had to deal with the difficulty of establishing the total amount of new fuel necessary to get the proper kiln temperature. Due to this reason the ceramic pieces get cracked or altered its final colour. It was evidenced that the ceramics production decays significantly during the initial fuel switching period^{/IMO1/}.
 - Storage of the renewable biomass – It was evidenced during on-site visit that the use of the new fuel had to be done with the proper humidity and therefore a new storage logistic was necessary^{/FAE/}. The renewable biomass was storage in the shed, just to protect it, before it could be use in the process.
- Financial (variable costs)
- Renewable biomass purchase – As it is clear indicated in the VCS PD and the financial spreadsheet that the variable cost with the renewable biomass is higher when compared with heavy oil. The new fuel implicates in higher costs due to its transportation and high biomass price. The heavy oil price was evidenced during the On-site visit according to the receipts presented to the auditor. The transportation costs are higher when using the new fuel, as evidenced in the invoices. All values used for the calculations could be evidenced and properly assessed^{/FAE/}. Please refer to the financial spreadsheet.
 - Electrical consumptions cost due to the new mechanical burners – before the project activity the costs with electricity consumption were smaller compared with the baseline scenario. It was evidenced through electricity consumption receipts.

The financial barrier due to variable costs has been validated and found to be significant for Vulcao and Argibem. This barrier could not be evidenced for Sao Sebastiao because the variable costs are slightly lower within the project activity than before. Financial (investment)

- Kilns firing entrance adjustments – Although the price for the kilns adjustments are small it is also considered as a barrier^{/FAE/}.
- Maintenance costs – costs related to the maintenance of the new mechanical burners acquired. It was evidenced during the On-site visit that this equipment frequently needs to be repaired^{/FAE/}.
- Mechanical burners, thermocouples and exhausters acquired – the price paid for the new machinery used in the project activity could be evidenced through buying receipts^{/FAE/}.
- Costs with transportation – the freight is expensive as can be checked in the financial spreadsheet.
- Kilns construction and reforms – the kilns needed to be adaptated to the the new biomass.

The financial barrier due to investment cost has been validated and found to be significant for Vulcao and Argibem. This barrier could not be evidenced for Sao Sebastiao because the variable costs are lower with the project activity than before.

Another barrier has been addressed that might be faced in the future:

- Increase in the renewable biomass price due the upcoming demand – As the use of renewable biomasses in the ceramic sector is an innovation the future demand of these fuels is difficult to foresee. Although there is currently a great amount of these biomasses available, there is a possibility that the prices will increase.

This barrier related to the price has been validated to be true but found not to be significant for the additionality of the small-scale project activity.

The validation team believe that the most impacting barrier for the proposed project activity are the new fuel used (technical barrier) including the production difficulties experienced due to the new fuel applied, renewable biomass purchase, mechanical biomass burners acquired and the uncertain of the renewable biomass supply due its possible upcoming demand in the future and the higher amount of variable costs (financial barrier). The presented technical and financial barrier is sufficient to properly address step 2 requests.

3.3 Completeness of Monitoring

Argibem, Sao Sebastiao and Vulcao Ceramic will be responsible for monitoring the pertinent parameters as described in VCS PD. The roles and responsibilities are clearly defined. Mr. Marcelo de Oliveira do Vale from Argibem Ceramic; Mrs. Maria Delmina Oliveira Gonçalves from São Sebastião ceramic; and Mr. Cláudio Pelegrini from Vulcão ceramic, They are responsible for monitoring the pertinent data for the project activity. The monitored parameter could be evidenced as follows:

- Amount of renewable biomass employed (tonnes) - measured by the project developer, monthly. The parameter will be monitored through the weight indicated in the buying receipts of the renewable biomasses providers. These values will be crosschecked with internal records on biomass they received. The specific gravity of each renewable biomass can be used for unit conversion^{/WEB3/}
- Production of ceramic devices (units per month) - controlled by the project developer, monthly – The ceramic maintain an internal spreadsheet for the production controlling that is fed daily. The QAQC procedure consists of a rigorous register of the daily production. The ceramic must have an internal control of the production for the internal financial balance^{/IM01/};
- Renewable origin of the biomass - controlled by the project developer, annually. The project participant will only buy renewable biomass from the list of its reliable supplier. Depending on the renewable biomass type different criteria must be applied as state in section 3.1 of this report. The sustainability of the biomass has been proved by the operating licence of the client. If the ceramic obtain their biomass from other suppliers than listed now in the PD they will check the origin of the biomass and provide evidence to the verification team.
- Renewable biomass surplus – In order to estimate the leakage emission of the renewable biomass the project participant will monitor the renewable biomass

surplus in the specific region of the project activity, yearly. The measurement will be based on national and internal sources.

During the project activity no equipment is transferred from another activity nor it is transferred from the project to another activity. It has not to be considered in this project.

The monitoring equipments are perfectly equilibrated based on the INMETRO Standard (Brazilian institute for metrology and calibration). An internal audit will be performed twice a year to ensure that the monitoring plan is being followed according the proposed in the VCS PD.

Nevertheless, 5 CARs were raised:

CAR/CR	Reference	Summary of project owner response	Revised sections (as applicable)	Conclusion
CAR 1 The name of the project in the monitoring is wrong. Please correct it.	Monitoring Report	The name of the project in monitoring report was corrected in accordance with the VCS PD.	Monitoring Report	Ok. The name was corrected.
CAR 2 Include “the justification of the choice of data or description...” in the table of EFCO2 and nth parameters.	Monitoring Report – item B.3	The justifications for both parameters were included in the respective tables of the section B.3 in the Monitoring Report.	Monitoring Report – item B.3	Ok. It was included in the Monitoring Report.
CAR 3 Please, complete the unit in Qrenbiomass, Tons per?	Monitoring Report – item B.4	The data unit of Qrenbiomass was corrected.	Monitoring Report – item B.4	Ok. It was completed. The unit was tonnes per month.
CAR 4 Check the configuration of the tables.	Spreadsheet – Argibem, Vulcao and Sao Sebastiao	The configuration of the tables in the MR spreadsheet was corrected.	Spreadsheet – Argibem, Vulcao and Sao Sebastiao	OK. The tables are corrected.
CAR 5 The results of the monitoring should be in section B.6, Monitoring Results.	Monitoring Report – item B.6	This point was corrected. The results of the monitoring report are in the section B.6 of the	Monitoring Report – item B.6	OK. The results are in section B.6 as asked by DOE.

Minor Changes:

- B.4, renewable biomass surplus, change the word “internal” for “international”.

The minor change was corrected.

3.4 Accuracy of Emission Reduction Calculations

The approved CDM baseline and monitoring methodology Category AMS-I.C.: Thermal energy for the user with or without electricity – Version 13 from March 14th 2008., is applied to the project activity.

GHG emission reduction is calculated as baseline emissions minus project emissions minus leakage emissions. As no project and leakage emissions are identified according to the applied methodology, baseline emissions are equal to the amount of emission reduction. Emission reduction is calculated through the estimate value of oil that would be consumed in the absence of the project activity in year y multiplied by the efficiency of the plant using fossil fuel in the absence of the project activity in year y multiplied by Net calorific value of oil multiplied by the EF of the projected fossil fuel adopted. The approach used for the emission reduction calculation was considered to be in accordance with the applied methodology.

It was verified in the course of this verification that the above-mentioned methodology has been correctly and accurately applied in calculating the total emission reductions and the emission reduction calculation is accurate and conservative.

3.5 Quality of Evidence to Determine Emission Reductions

The project proponent as evidence to determine emission reductions submitted several documents. Refer to Table 5-1.

The evidences were assessed as of sufficient quantity and appropriate quality.

3.6 Management and Operational System

The management and operational system of the project is suitable. An operational structure was established with responsibilities identified. Staff training plan was clear; training records were available^{/ECT/}. The quality management and erroneous procedures were clearly defined^{/VCS PD/}.

4 Verification Conclusion

Carbono Social Servi'cos Ambientais Ltda has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "Argibem, Sao Sebastiao and Vulcao Ceramics Switching Fuel Project", with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to switching non-renewable sources to renewable biomass fuel for end-user thermal energy generation. This verification covers the period from 2006-04-01 to 2008-09-30 (including both days).

In the course of the verification 5 Corrective Action Requests (CAR) and 0 Clarification Requests (CR) were raised. Furthermore 0 FARs are raised to improve the monitoring system in the future. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the VCS PD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology ,ie, AMS-I.C.: Thermal energy for the user with or without electricity – Version 13 from March 14th 2008.
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1st periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows: Emission reductions:

Emission reductions:	CO ₂ [t CO ₂]	CH ₄ [t CH ₄]	N ₂ O [t N ₂ O]	HFCs [t HFC]	PFCs [t PFC]	SF ₆ [t SF ₆]	Sum [t CO ₂ e]
2006	12,787	-	-	-	-	-	12,787
2007	17,380	-	-	-	-	-	17,380
2008	14,879	-	-	-	-	-	14,879
TOTAL:							45,046

Essen, 2009-05-22



Rainer Winter
TÜV NORD JI/CDM CP
Verification Team Leader

Essen, 2009-05-22



Eric Krupp
TÜV NORD JI/CDM CP
Final approval

5 References

Reference	Document
/ECR/	Electric consumptions receipts checked during on-site visit. It could be evidenced that the electric consumption and costs are higher than before of the project activity.
/ECT/	Employee's certificates for training realized regarding process for the project activity.
/FAE/	Financial assessment evidences. Please refer to invoice receipts for the assessment of the pertinent financial data used in the financial spreadsheet calculation.
/OLce1/	Operational Licence of Clay extraction of Sao Sebastiao – municipal register: FE 011229, issued on 2006-06-28 and valid until 2011-06-28.
/OLce2/	Operational Licence of Clay extraction of Argibem – municipal register: FE 397/07, issued on 1997-11-26 and valid until 2002-11-26. New protocol: 09856/29 in July.
/OLce3/	Operational Licence of Clay extraction of Vulcao – municipal register: FE 002859, issued on 2004-08-25 and valid until 2009-08-25.
/OL1/	Operational Licence of Vulcao – FE010162. Valid until 2010-10-20
/OL2/	Operational Licence of Sao Sebastiao– FE010613 Valid until 2011-03-31
/OL3/	Operational Licence of Argibem – FE008251 Valid until 30/03/2010
/ML1/	Municipal Licence to Argibem Ceramic – municipal register: 3720.8.0/91. There's no valid date.
/ML2/	Municipal Licence to Sao Sebastiao Ceramic – municipal register: 19349.6, issued on 1995-08-31.
/ML3/	Municipal Licence to Vulcao Ceramic – municipal register: 0046302, issued on 2008-06-27.
/MR/	Monitoring Report, version 3 completed in May 15 th 2009.
/PFT/	Contract signed between Carbono Social Serviços Ambientais Ltda. and Argibem, Sao Sebastiao and Vulcao ceramic stating their ownership of the project.

Reference	Document
/PRO/	Signed BRTÜV proposal issued for the project activity. It is clear stated the date of contracting for the validation and verification process. Date 31/07/2008.
/TAP/	TAPIA, R. E. C. et al. Manual para a indústria de cerâmica vermelha. Rio de Janeiro: SEBRAE/RJ, 2000. – “Manual for red ceramics industries”
/VCS PD/	Project Design Document “Argibem, Sao Sebastiao and Vulcao switching fuel project” Version 03– May 15 th , 2009.
/XCS1/	Calculation spreadsheet of baseline study and emission reduction in “estimativas” - Version 03

Table 5-2: Background investigation and assessment documents

Reference	Document
/AMS-I.C./	AMS-I.C.: Thermal energy for the user with or without electricity – Version 13 from March 14th 2008..
/GHG Protocol/	GHG Protocol for Project Accounting 2005.
/IPCC-GP/	IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000
/IPCC/	2006 IPCC Guidelines for National Greenhouse Gas Inventories: General Guidance and Reporting
ISO 14064-1:2006	Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
ISO 14064-2:2006	Greenhouse gases - Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.
ISO 14064-3:2006	Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions
ISO 14065:2007	Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition

Reference	Document
/KP/	Kyoto Protocol (1997)
/CONAMA 279/	Resolution CONAMA 279 (2001) – Environmental National Board
/VCS/	Voluntary Carbon Standard Program Guideline 2007.

Table 5-3: Websites used

Reference	Link	Organization
/MCT/	http://www.mct.gov.br	Ministério da Ciência e Tecnologia – Technology and Science Department
/UNFCCC/	http://unfccc.int	United Nations Framework Convention on Climate Change
/VCS/	http://www.v-c-s.org	Voluntary Carbon Standard
/FEEMA/	http://www.feema.rj.gov.br/	Fundação Estadual de Engenharia e Meio Ambiente
/DNPM/	http://www.dnpm.gov.br	National Department of Mineral Production

Table 5-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Mr Marcelo de Oliveira do Vale from Argibem Ceramic, Mrs Maria Delmina Oliveira Gonçalves from São Sebastiao and Mr Claudio Pelegrini from Vulcao Ceramic. Ms. Flávia Takeuchi – Carbono Social Serviços Ambientais	▪ Desk review findings ▪ General aspects of the project ▪ Project design, Commissioning and implementation ▪ Technical equipment and operation of the project ▪ Performance of the project ▪ Involved personnel and responsibilities ▪ Training and practice of the operational personnel ▪ Implementation of the monitoring plan ▪ Monitoring and measurement equipment ▪ QA/QC Testing and calibration procedures ▪ Monitored data management

Interviewed Persons / Entities	Interview topics
Ms. Raquel Linares Couto and Mr Rafael Kupper - Carbono Social Serviços Ambientais	▪ Data quality, archiving and reporting procedures ▪ Data uncertainty and residual risks ▪ GHG calculation ▪ Procedural aspects of the verification

Table 5-5: List of interview people

Reference	Mol ¹		Name	Organization / Function
/IM01/	V	☒ Mr. ☒ Ms.	Mr Marcelo de Oliveira do Vale, Mrs Maria Delmina Oliveira Gonçalves and Mr Claudio Pelegrini	Ceramics owner
/IM01/	E, V	☐ Mr. ☒ Ms.	Flávia Yumi Takeuchi	Carbono Social Serviços Ambientais Ltda - Technical Coordinator
/IM01/	V	☒ Mr. ☒ Ms.	Ms Raquel Linares Couto and Mr Rafael Kupper	Carbono Social Serviços Ambientais Ltda - Technical Analysts

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)