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Audit Report 2024

In accordance with the following requirements:

Puro.earth - Biochar Methodology

Groupe Bordet Four Bordet
21290 Leuglay
Operator's No.: PE-71059

Contact details operator

Name and address

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Contact person(s)

Monsieur Cyril Flores

Audit visit details

Date
13.03.2024

Duration
2 h 0 m

Persons present including their function
ALBAREL Charlotte, General Director
FERRIERE Nicolas, Operations Manager Carbon App
GARNIER Bulle, Associated member Carbon App
DESHOUX Maëlle, R&D Project responsible
Philipp Seitz, bio.inspecta AG, Auditor

	very good						not satisfactory
Clarity of documentation	☐	☐	☐	☒	☐	☐	☐
Audit visit preparation:	☐	☐	☐	☒	☐	☐	☐

O.K | Corrective action required | Not verified | Not relevant

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				1	**Audit Description**
☒	☐	☐	☐	1.01	Audited Standard: *Puro.earth CO2 Removal Marketplace General Rules 3.1 – Biochar Methodology (Annex A)*
☒	☐	☐	☐	1.02	Type of Audit: *Production Facility Audit and Output Audit*
☒	☐	☐	☐	1.03	Auditing Body: *bio.inspecta AG, Ackerstrasse 117, CH-5070 Frick* *www.bio-inspecta.ch*
☒	☐	☐	☐	1.04	Audit order assigned to an impartial auditor, free from any conflicts of interest, capable and qualified to complete this audit according to Puro Standard. *Auditor (name/surname): PHILIPP SEITZ*
☒	☐	☐	☐	1.05	Audit ID: *PE-71059*
☒	☐	☐	☐	1.06	Audit Date: *14.11.2023*
☒	☐	☐	☐	1.07	Production Facility Location: *Froidvent, 21290 Leuglay*
☒	☐	☐	☐	1.08	Production period: *01.11.2021 - 30.04.2023*
☐	☒	☐	☐	1.09	Audit could be finished within the scheduled time frame *Audit could not be finished within the scheduled time frame. Delayed submission of audit package. Late submission of CO2 footprint calculation. Repeated corrections of the LCI necessary.*
				2	**Standing Data Confirmation**

O.K | Corrective action required | Not verified | Not relevant

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				2	**Standing Data Confirmation**
☒	☐	☐	☐	2.01	The standing data has been collected from Puro and checked for consistency against other evidence. (GL Ref.1.2.5.) *Trade registry available; location evidenced; removal method eligible; no public support. Evidence of output volume: Consolidated protocol shows production of 4.082 t during 18 month crediting period (01.11.21 - 30.04.23). Two EBC batches overlap with crediting period: (1) 11 month overlap with ba-fr-115-1-1 from 01.11.21 to 21.09.22; (2) 7 month overlap with ba-fr-1151-1-2 (22.09.22 - 30.04.23). Total quantities produced are significantly superior to quantities claimed as biochar. 672 t provenly sold as biochar.*
				3	**Evidence Confirmation**
☒	☐	☐	☐	3.01	All necessary evidence has been provided to the auditor by the Production facility and has been used to complete the compliance checklist. (GL Ref. 5.) *Proof of product quality: EUROFINS laboratory analysis AR-23-FR-008917-01 for ba-fr-115-1-2; Evidence of output volume: Consolidated protocol shows production of 4.082 t during 18 month crediting period (01.11.21 - 30.04.23). Two EBC batches overlap with crediting period: (1) 11 month overlap with ba-fr-115-1-1 from 01.11.21 to 21.09.22; (2) 7 month overlap with ba-fr-1151-1-2 (22.09.22 - 30.04.23). Total quantities produced are significantly superior to quantities claimed as biochar; 672 t provenly sold as biochar. Proof of no double counting: written declaration of buyers available; Carbon Credit Withdrawal Right issued, thereby transferring the right to generate carbon credits from the carbon content of the biochar (example attached).*
				4	**Eligibility Checklist**
☒	☐	☐	☐	4.01	Biochar is used in applications other than energy. (GL Ref. 1.1.1.) *98% of sold biochar is used as soil amendment. The remainder is used for animal nutrition. Biochar used as material and for other applicationst is negligent. 80% of bulk sales to major customers have been cross-checked for its end use (EcoTree; Florentaise; Callegari; Carboneri; klimafarmer), attesting that the end use is non-energetic.*

O.K Corrective action required Not verified Not relevant

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				4	**Eligibility Checklist**
☐	☒	☐	☐	4.02	Biochar is produced from sustainable forest or waste biomass raw materials (consult positive list of biomasses). (GL Ref. 1.1.2) *Only 16% of biomass consumed during ba-fr-115-1-2 is PEFC certified,* *corresponding to 2.644 t of 16.529 t which allows the production of 661 t of biochar based on a conversion ratio of 4:1;* *this suffices to accommodate the biochar volumes eligible for validation (672 t minus 55 t produced during the last 6 months of the previous batch ba-fr-115-1-1 belonging to the validation period) within this threshold but not beyond if demand for biochar* *increases in future. Further, the volume credit method applied for issuance* *of the COC certificate is not self-explanatory regarding the applicable quota system.*
☒	☐	☐	☐	4.04	Pyrolysis reactor input fuel for heating is not a fossil fuel. Unless only used for ignition/pre heating or in a mobile unit and the emissions are fully included in the LCA. The use of waste heat from other industrial processess (eg. Biodigesters, cement production) is permitted. (GL Ref. 1.1.4.) *One single ignition w/ gas (3-5 hours) and fuel (5-6 hours) per year following maintenance. The rest of the year the pyrolysis operates auto-thermal w/* *synthesis gases and tar (both generated during the pyrolysis).*
☒	☐	☐	☐	4.05	Pyrolysis gases are combusted or recovered. Bio-oil and pyrolysis gases can be stored for later use as renewable energy or materials. (GL Ref. 1.1.5.) *Gases are trapped and tar separated. The clean gas is partly used to produce electricity for own consumption, partly to fuel the boiler, the same as condensed and separated tar which is sprayed into it. The generated heat is directed towards the dryers.*
☒	☐	☐	☐	4.06	The molar H/Corg ratio is less than 0.7. *The molar H/Corg ratio significantly below 0.7 for AR-23-FR-008917-01 (ba-fr-115-1-2) = 0.24.*

O.K | Corrective action required | Not verified | Not relevant

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O.K	Corrective action required	Not verified	Not relevant		
				4	**Eligibility Checklist**
☐	☒	☐	☐	4.07	The biochar produced meets any product quality requirements existing in the jurisdiction where biochar is used and for the specific applications considered (GL Ref 1.1.7). *Whether quality requirements exist in the jurisdictions where it is used is unknown though unlikely. The conferred EBC quality status = AgroOrganic testifies to highest quality standards and therefore for all types of applications including animal nutrition (EBC FeedPlus). Although small quantities are sold for feed purposes, registration as feed processor is lacking.*
☒	☐	☐	☐	4.08	Evidence of safe handling and transport is provided and adequate for the production facility. (GL Ref. 1.1.8.) *In general, biochar is not moistened, but kept in big bags w/ a double plastic layer (inner and outer) which apparently prevents self-ignition and dust formation due to the inaccessibility of outer influences. This practice will be maintained for B2B sales (EBC material class). For B2B sales of EBC classes Agro/AgroBio biochar is quenched up to customer-preferred moisture levels. For B2C sales biochar is quenched up to the recommended moisture level of 30%.*
				5	**LCA Checklist**

O.K | Corrective action required | Not verified | Not relevant

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				5	**LCA Checklist**
☐	☒	☐	☐	5.01	LCA complete and shows: carbon footprint of the biomass production and supply , emissions from the biochar production process , carbon footprint of the biochar end use - cradle to grave. (GL Ref. 1.1.3) *Emissions A1 – A4, B1 & Infrastructure included. End-use not included in the LCA. Carbon content provided as part of EUROFINS analytical report AR-23-FR-008917-01 for ba-fr-115-1-2. Requirement 1.1.6: One single ignition w/ gas (3-5 hours) and fuel (5-6 hours) per year following maintenance. The rest of the year the pyrolysis operates w/ synthesis gases and tar (both generated during the pyrolysis); 1.1.7: Gases are trapped and tar separated. The clean gas is partly used to produce electricity for own consumption, partly to fuel the boiler, the same as condensed and separated tar which is sprayed into it. 1.1.8: The generated heat is directed towards the dryers. 1.1.9 Carbon content provided as part of EUROFINS analytical report AR-23-FR-008917-01 for ba-fr-115-1-2. 1 (corresponding to 7 months of the validation period); the analytical results of Lab Tests_AR-23-FR-009232-01 corresponding to ba-fr-115-1-1 which participates 11 months of the validation period was left unconsidered because of near to equivalent carbon contents (1% to the lower).1.10: The molar H/Corg ratio significantly below 0.7 for AR-23-FR-008917-01 (ba-fr-115-1-2) = 0.24. 1.1.11 The molar O/Corg ratio significantly below 0.4 for AR-23-FR-008917-01 (ba-fr-115-1-2) = 0.037.*

O.K | Corrective action required | Not verified | Not relevant

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				5	LCA Checklist
☐	☒	☐	☐	5.02	The CO2 Removal Supplier provides a life cycle assessment (LCA) for biochar activity including disaggregated information on the emissions arising at different stages. The system boundary is set cradle-to-grave and includes emissions from production and supply of the biomass, from biomass conversion to biochar, and from biochar distribution and use. (GL Ref. 3.1) *LCA provided by CarbonApp. The system boundary of the LCA was set to cradle-to-consumer, consistsing of the biochar production, including raw material supply, raw material transport, production and distribution within a 100-year time boundary. Infrastructure is included. End-use is lacking, the system boundary of this study does therefore not fully accord to the Puro earth requirements. The raw data on infrastructure and consumption comes from the Bordet's Carbon Footprint Calculation established over 12 months; the Crediting Period of the Biochar studied being 18 months, the values extracted from the Carbon Footprint Calculation were reproportioned over 18 months under the hypothesis that the emissions over the next 6 months will be similar to those collected on average over the first 12 months*
☒	☐	☐	☐	5.03	Life cycle assessment (LCA) follows ISO standard, WRI GHG protocol or similar method. (GL Ref. 3.2) *The LCIA was conducted using CML -IA baseline (version 3.05) for the characterization factors of GWP. The CML -IA baseline method uses the characterization factors as developed by the Intergovernmental Panel on Climate Change (IPCC), ex- pressed as GWP for time horizon 100 years (GWP100). According to the SFS-EN ISO 14040 standard series, the LCIA includes both mandatory and voluntary parts. The LCI is further based on a CO2 footprint calculation conducted for the period 09/2019 to 08/2020 (12 months). Because the LCI was calculated based on the % of biochar sales to the overall production that were corresponding to periods different in length (18 months vs. 12 months), the calculation period was streamlined with the validation period,*
☐	☐	☐	☒	5.04	The default baseline emission scenario for the project activity feedstock is zero, which is a conservative assumption since it is not taking into account methane emissions derived from decay of manure or combustion of waste biomass. If a non-zero baseline presented, needs to be accepted by Puro.earth *The default baseline emission scenario is assumed to be zero.*

O.K Corrective action required Not verified Not relevant

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				6	**Production Facility Checklist (Desktop and Verbal Confirmation).**
☒	☐	☐	☐	6.01	Evidence of Production Facility eligibility under the general rules of Puro Standard. (GL Ref. 1.2.1) *Trade registry available; location evidenced; removal method eligible; no public support. Evidence of output volume: Consolidated protocol shows production of 4.082 t during 18 month crediting period (01.11.21 - 30.04.23). Two EBC batches overlap with crediting period: (1) 11 month overlap with ba-fr-115-1-1 from 01.11.21 to 21.09.22; (2) 7 month overlap with ba-fr-1151-1-2 (22.09.22 - 30.04.23). Total quantities produced are significantly superior to quantities claimed as biochar. 672 t provenly sold as biochar.*
☒	☐	☐	☐	6.02	The Production Facility demonstrate Environmental and Social Safeguards. (GL Ref. 1.2.2.) *Environmental and Social Safeguards submitted (see attached).*
☒	☐	☐	☐	6.03	CO2 Removal Supplier shall be able to demonstrate additionality, meaning that the project must convincingly demonstrate that the CO2 removals are a result of carbon finance. Even with substantial non-carbon finance support, projects can be additional if investment is required, risk is present, and/or human capital must be developed. To demonstrate additionality, CO2 removal Supplier must provide full project financials and counterfactual analysis based on Baselines that shall be project-specific, conservative and periodically updated. Suppliers must also show that the project is not required by existing laws, regulations, or other binding obligations. (GL Ref. 1.2.3) *Additionality requirements fulfilled. Additionally statement attached to the validation order.*
☒	☐	☐	☐	6.04	The Production Facility's documentation system is accurate and reliable (GL Ref. 1.2.4) *Evacuations of biochar from the kiln is computed. One evacuation corresponds to 96 kg. The total number of evacuations during a batch period corresponds to the total annual amount, minus 52 evacuations corresponding to one kiln which is eliminated after the annual maintenance stop (app. 5 t). Each biomass delivery is weighed and recorded. Electricity is metered (invoice attached).* *Invoices for propane and fuel consumption attached.*

O.K Corrective action required Not verified Not relevant

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				6	**Production Facility Checklist (Desktop and Verbal Confirmation).**
☒	☐	☐	☐	6.05	The quantity of the biochar produced and sold is quantified and documented in a reliable manner (GL Ref. 1.2.4) *Evacuations of biochar from the kiln is computed. One evacuation corresponds to 96 kg. The total number of evacuations during a batch period corresponds to the total annual amount, minus 52 evacuations corresponding to one kiln which is eliminated after the annual maintenance stop (app. 5 t). Sales records complete and transparent (attached).*
☒	☐	☐	☐	6.06	Relevant meters are in place and they are calibrated (GL Ref. 1.2.4) *Calibration certificates of weighing bridge submitted (attached).*
☒	☐	☐	☐	6.07	The emissions from the cultivating, harvesting and transporting of the biomass are estimated and calculated in a reliable manner (GL Ref 1.2.4) *Harvesting and transport considered. Total biomass considered for wooden edgings and short wood chutes. For each delivery, truck category, tonnage (net weight wet) and transport distances are indicated. Through multiplication of tonnage and distance tonkm are being generated which is the required unit to apply the truck category-specific emission factors. Four truck categories and respective emission factors can be distinguished (see Bilan Carbone). Calculations rely on supplier invoices.*
☒	☐	☐	☐	6.08	The energy use of the Production Facility can be quantified and the emissions from the process calculated (GL Ref. 1.2.4) *Electricity is metered (invoice attached).* *Invoices for propane and fuel consumption attached.*
☐	☐	☐	☒	6.09	The auditor goes through the Quantification of CO2 Removal requirements with the CO2 Removal Supplier, so that the Supplier is able to calculate the CO2 Removal independently in its Output Report *Done on behalf of the LCI provider.*
				7	**Calculation Checklist**

O.K Corrective action required Not verified Not relevant

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O.K	Corrective action required	Not verified	Not relevant	7	Calculation Checklist
☒	☐	☐	☐	7.01	Qbiochar = Quantity of biochar produced and sold to end user. (dry char) (GL Ref. 4.2.) *672,2 t sold as biochar corresponding to 16% of the total quantity of 4082 t produced during the validation period.*
☒	☐	☐	☐	7.02	FpTHTs = c + m x H/Corg (GL Ref. 4.2.) *Provided in the Gross embodied CO2 calculator at given soil temperature and selected time horizon = 89,44.*
☒	☐	☐	☐	7.03	C Biochar = carbon content of biochar (GL Ref. 4.2.) *Carbon content provided as part of EUROFINS analytical report AR-23-FR-008917-01 for ba-fr-115-1-2 (89.7%).*
☒	☐	☐	☐	7.04	Estored = biochar carbon storage = Qbiochar x Cbiocharorg x FpTHTs x 44/12 (GL Ref. 4.2.) *Provided in the respective Gross Embodied CORC calculator (2.942 mt CO2eq/mt biochar).*
☒	☐	☐	☐	7.05	Ebiomass = LCA emissions of production and supply of biomass (GL Ref. 4.3.) *Provided in the respective Gross Embodied CORC calculator (0.1757 mtCO2eq/mt biochar)..*
☒	☐	☐	☐	7.06	Eproduction = LCA emissions from biochar manufacturing (GL Ref. 4.4) *Provided in the respective Gross Embodied CORC calculator (0.072 mt CO2eq/mt biochar).*
☒	☐	☐	☐	7.07	Euse = LCA emissions of the use of biochar, including distribution up to the point of final use (GL Ref 4.5) *Provided in the respective Gross Embodied CORC calculator (0.0342 mt CO2eq/mt biochar).*
☒	☐	☐	☐	7.08	CORCs = Estored - Ebiomass - Eproduction - Euse *CORCs: 1710,67*

O.K | Corrective action required | Not verified | Not relevant

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				7	**Calculation Checklist**
☒	☐	☐	☐	7.09	Quantity of CORCs (in evidence). *CORCs: 1710,67*
☒	☐	☐	☐	7.10	Confirm consistency. *The following measures to safeguard consistency were taken: (1) The LCI was not self-explanatory as all quantitative source data was taken from Bordet's carbon footprint calculation of 2019/20 > Carbon Footprint Calculation requested to verify the accuracy of data; (2) Linkage of data b/ween Carbon Footprint Calculation and LCI was difficult because the CFC is listing all movements pertaining to charcoal and biochar, while the LCI is listing those linked to the production of biochar > Correspondence table requested to verify the accuracy of the LCI; (3) Mismatch of calculation and validation periods > The period laid down for the CFC of 12 months was re-proportioned to 18 months to adjust in length to the period laid down for the validation period; (4) Because Bordet is not only producing biochar, the LCI was originally built on the % of biochar production > while the accounted biochar was stretching over a 18 month' sales period but the CFC was limited to 12 months, the LCI was re-modelled to cater for 100% of production of the re-proportioned calculation period before applying the % value.*
				8	**Site Visit Checklist**
☒	☐	☐	☐	8.01	The raw material is of eligible type and sustainably sourced (GL Ref. 1.1) *Wooden cuttings and short wood chutes Oak and beech (processing waste from app. 25 saw mills).*
☐	☒	☐	☐	8.02	The LCA specifics and emissions boundary are consistent with observations on site (GL Ref. 1.1) *The system boundary of the LCA was set to cradle-to-consumer, consisting of the biochar production, including raw material supply, raw material transport, production and distribution; however, end-use is not considered. Infrastructure included. Consistent with onsite observations.*

O.K Corrective action required Not verified Not relevant

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				8	**Site Visit Checklist**
☒	☐	☐	☐	8.03	There are no fossil fuels used to heat the pyrolysis reactor (GL Ref. 1.1) *One single ignition w/ gas (3-5 hours) and fuel (5-6 hours) per year following maintenance. The rest of the year the pyrolysis operates w/ synthesis gases and tar (both generated during the pyrolysis). Fossil fuels for ignition allowed by EBC and Puro Earth.*
☒	☐	☐	☐	8.04	Pyrolysis gases are recovered in the biochar production process (GL Ref. 1.1) *Gases are trapped and tar separated. The clean gas is partly used to produce electricity for own consumption, partly to fuel the boiler, the same as condensed and separated tar which is sprayed into it. The generated heat is directed towards the dryers.*
☒	☐	☐	☐	8.05	Evidence of safe handling and transport of the biochar (GL Ref. 1.1) *In general, biochar is not moistened, but kept in big bags w/ a double plastic layer (inner and outer) which apparently prevents self-ignition and dust formation due to the inaccessibility of outer influences. This practice* *will be maintained for B2B sales (EBC material class).* *For B2B sales of EBC classes Agro/AgroBio biochar is quenched up to customer-preferred moisture levels. For B2C sales biochar is quenched* *up to the recommended moisture level of 30%.*
☒	☐	☐	☐	8.06	Biochar is used in applications other than energy (GL Ref. 1.1) *Carbon* *content provided as part of EUROFINS analytical report* *AR-23-FR-008917-01 for ba-fr-115-1-2 (89,7%).*
☒	☐	☐	☐	8.07	The molar H/Corg ratio is less than 0.7 *The molar H/Corg* *ratio significantly below* *0.7 for AR-23-FR-008917-01 (ba-fr-115-1-2) = 0.24.*

O.K | Corrective action required | Not verified | Not relevant

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				8	**Site Visit Checklist**
☒	☐	☐	☐	8.08	Confirm how the Production Facility documents the quantity of biochar produced and sold *Evacuations of biochar from the kiln is computed. One evacuation corresponds to 96 kg. The total number of evacuations during a batch period corresponds to the total annual amount, minus 52 evacuations corresponding to one kiln which is eliminated after the annual maintenance stop (app. 5 t).*
☒	☐	☐	☐	8.09	Confirm that the Production Facility's documentation system is accurate and reliable *See 8.08*
☒	☐	☐	☐	8.10	Confirm that appropriate metering infrastructure is present and calibrated correctly to determine production output *See 8.08*
☒	☐	☐	☐	8.11	Confirm that appropriate metering infrastructure is present to quantify the energy use of the Production Facility *Electricity is metered (invoice attached).* *Invoices for propane and fuel consumption attached.*
☒	☐	☐	☐	8.12	Confirm the calculations that are used to quantify emissions from the process. These account for: - the energy (e.g. waste heat) created by the biochar - the energy source used in the production process *Gases are trapped and tar separated. The clean gas is partly used to produce electricity for own consumption, partly to fuel the boiler, the same as condensed and separated tar which is sprayed into it. The generated heat is directed towards the dryers. One single ignition w/ gas (3-5 hours) and fuel (5-6 hours) per year* *following maintenance. The rest of the year the pyrolysis operates w/ synthesis gases and tar (both generated during the pyrolysis).*

O.K Corrective action required Not verified Not relevant

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				8	**Site Visit Checklist**
☒	☐	☐	☐	8.13	Confirm the process that is in place to quantify emissions from the harvest of raw materials. These account for: - forest biomass vs biomass from other waste *Each biomass delivery is weighed and recorded. Wood stock organised according to type of wood (wooden edging; short wood chutes), and date of delivery (each stock pile can be referenced by a particular number). First-in-first-out principle followed. 12.444 t purchased during ba-fr-115-1-2 plus 7.415 t stock at 30.09.22 minus 3.330 t stock at 30.09.23 = 16.529 t consumed during ba-fr-115-1-2. During the 12 month period laid down for the Bilan Carbone purchases equalled 12.750 t.*
☒	☐	☐	☐	8.14	Confirm the process that is in place to quantify emissions from the transport of raw materials to the Production Facility. *For each delivery, truck category, tonnage (net weight wet) and transport distances are indicated. Through multiplication of tonnage and distance tonkm are being generated which is the required unit to apply the truck category-specific emission factors. Four truck categories and respective emission factors can be distinguished (see Bilan Carbone). Calculations rely on supplier invoices.*
☒	☐	☐	☐	8.15	The Production Facility demonstrate Environmental and Social Safeguards *Environmental and Social Safeguards submitted (attached).*
☒	☐	☐	☐	8.16	Confirm the CO2 removals are a result of carbon finance *Additionality requirements fulfilled. Additionally statement attached to the validation order.*
☒	☐	☐	☐	8.17	The requirements for Quantification of CO2 Removal have been explained to the Supplier by the Auditor for the purpose of compiling the Output Report *Explained to the supplier during the onsite audit.*

O.K | Corrective action required | Not verified | Not relevant

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				8	**Site Visit Checklist**
☒	☐	☐	☐	8.18	Confirm the process that is in place to collect and maintain proofs as per Section 5 of the Biochar Guidelines. - Proof of sustainability of raw material for forest biomass (FSC, SFI, PEFC, other certifications) - Proof of sustainability of raw material for waste biomass - LCA data for biomass and biochar production, supply and use, including climate change impact and the contribution of each life cycle stages - Proof of product quality: laboratory analysis of total organic carbon content, hydrogen content and H/Corg - Proof of production volume: documentation for the whole period and methodology applied to calculate the dry mass of biochar produced. - For mobile units or carbonizer operator: proof of load cell measurement of the biochar for the whole period, and water input measurement. - Proof of end use of biochar: offtake agreement, shipment, and other records indicating the intended use of biochar. - Justification on the soil temperature selected for the calculation of the biochar sequestration. - Proof of sales - Proof of no double counting/C positive marketing. *See 3.01 & 5.01*
				9	**Overall conclusion**
☒	☐	☐	☐	9.01	Overall conclusion: *The validator confirms that the LCA calculation for the crediting 01.11.21 – 30.04.23 provides a credible and faithful account of output volumes and emissions, and thus of declared carbon dioxide removals eligible for CORC as stated in the Output statement. The validator is confident that the conservativeness has been applied to a sufficient degree to say that declared CO2 removals are fully justified provided that corrective actions will be implemented until validation start of the following validation period.*

Auditor’s evaluation and recommendation

Non-compliance	Corrective action	Deadline
Puro.earth - Biochar Methodology		
4.02 The volume credit method applied for issuance of the COC certificate is not self-explanatory regarding the applicable quota system.	Please provide an explanation how the volume credit method, quota system and certified quantities relate to each other.	
4.07 Registration as feed processor is lacking.	Please submit proof that your biochar can be used for feed purposes according to local, regional or national requirements despite the lack of registration.	
5.01 LCA calculation is incomplete and needs a revision by the LCA provider. The following findings in the LCA need to be recalculated and updated: - Inclusion of end-use; - Timely adjustment and streamlining of the Bilan Carbon and LCA with the validation period.	The adjustment and recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference added or discounted. Please submit updated version of LCA. An additional announced audit date will be set in order to evaluate the LCA update.	
5.02 The system boundary of the LCA study does not fully accord to the Puro earth requirements because end-use emissions are lacking.	Factoring of end-use into the LCA is not feasible in the short-term. Recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference discounted.	

8.02 End-use is not considered in the LCA.	Factoring of end-use into the LCA is not feasible in the short-term. Recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference discounted.	

The Right to be Heard

The undersigned has reviewed the outcome of the audit documented in this report and confirms the completeness and accuracy of the information provided in the audit and the content of this report.

He/ she has taken note of the non-conformities, measures, deadlines and sanctions described in this report.
The undersigned has the option of submitting a counter-notification in writing to bio.inspecta AG within three working days of receipt of this report. If no reply is received within this period, the contents of this report shall be deemed to be acknowledged.

Frick, 15.03.2024	Leuglay, ...
bio.inspecta AG / q.inspecta GmbH International Department	Groupe Bordet Four Bordet
	.....
Philipp Seitz	name, first name.....
Auditor	function.....

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Evaluation report for the Puro.earth - Biochar FA - OA dated 13/03/2024

Based on our audit we confirm that your operation largely meets the requirements of the following standards:

-

The evaluation process has shown that your production method does not fully comply with all requirements. In order to maintain the Puro.earth requirements, you must address the noncompliances listed below. Please implement and document corrective actions by the deadline indicated.

The following noncompliances have been identified:

4.02.01.01 Puro.earth Methodology: The volume credit method applied for issuance of the COC certificate is not self-explanatory regarding the applicable quota system.

Please provide an explanation how the volume credit method, quota system and certified quantities relate to each other.

Sanction level: A

4.07.01.01 Puro.earth Methodology: Registration as feed processor is lacking.

Please submit proof that your biochar can be used for feed purposes according to local, regional or national requirements despite the lack of registration.

Sanction level: A

5.01.01.01 Puro.earth Methodology: LCA calculation is incomplete and needs a revision by the LCA provider. The following findings in the LCA need to be recalculated and updated:
- Inclusion of end-use;
- Timely adjustment and streamlining of the Bilan Carbon and LCA with the validation period.

The adjustment and recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference added or discounted. Please submit updated version of LCA. An additional announced audit date will be set in order to evaluate the LCA update.

Sanction level: A

5.02.01.01 Puro.earth Methodology: The system boundary of the LCA study does not fully accord to the Puro earth requirements because end-use emissions are lacking.

Factoring of end-use into the LCA is not feasible in the short-term. Recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference discounted.

Sanction level: A

8.02.01.01 Puro.earth Methodology: End-use is not considered in the LCA.

Factoring of end-use into the LCA is not feasible in the short-term. Recalculation of the CORC factor and CORC number for the present validation period (01.11.21 to 30.04.23) must be finalised latest at the start of next validation for the following validation period (01.05.23 - 30.04.24), and any difference discounted.

Sanction level: A

Notes on graduated sanctions in accordance with:
Puro.earth CO2 Removal Marketplace

Type of Sanction	Explanation
O	Recommendations: no sanction
A	Implementation of corrective actions will be verified during the next audit.
B	Evidence of corrective actions must be provided prior validation.
C	Notification to relevant authorities. Bio.inspecta may require an additional audit at the operator's expenses.
D	Non-Recognition / Derecognition – If certification is withdrawn, it is no longer permitted, with immediate effect, to market the products under the certified standard. Buyers must be informed about the withdrawal of certification.
E	Penalty

Right to appeal

The undersigned has reviewed the outcome of the audit documented in this report and confirms the completeness and accuracy of the information provided in the audit and the content of this report.

He/ she has taken note of the non-conformities, measures, deadlines, and sanctions described in this report.

The undersigned has the option of submitting a counter-notification in writing to bio.inspecta AG within three working days of receipt of this report. If no reply is received within this period, the contents of this report shall be deemed to be acknowledged.

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Operator No. PE-71059 18/03/2024, HR

Evaluation report for the Puro.earth Facility Audit dated 13/03/2024

Dear Sir or Madam

Based on the findings and on the evaluation of the documents submitted in relation to this inspection, some noncompliances according to the standards listed below were identified:

- Puro.earth Methodology

However, the evaluation process has shown that your methods does not fully comply with all requirements. In order to maintain the approval, you must address the noncompliances listed in the attached report. Please implement and document corrective actions by the deadline indicated.

For any questions, please do not hesitate to contact us.

We thank you for your cooperation.

Yours sincerely,

bio.inspecta AG

Renner Heike
Certification Officer

Enclosures:
- Evaluation report