Public Project Description

This document is a project description made available in the Puro Registry to summarize the information available about a certified production facility. The project description is organized as follow:

1 Production Facility and Supplier information

This project description corresponds to the following **Production Facility** and **CO_2 Removal supplier**, acting as registering entity of the facility.

Production Facility	
Production Facility name	Lithos Midwest Facility
Registration date (YYYY-MM-DD)	2025-09-21
Production Facility ID	606367
Location of facility	[redacted] WI
Host Country of removal	United States
Has this facility been registered in another registry?	☒No ☐Yes, additional information (registration periods):
This table is filled in by the CO_2 Removal Supplier.	

CO_2 Removal Supplier	
Supplier name	Lithos Carbon
Supplier address	1111B S Governors Ave #6084 Dover, DE 19904
Business ID	NA
KYC status	Completed (October 28, 2024)
This table is filled in by the CO_2 Removal Supplier.	

The above-mentioned production facility has undergone the following audit, during which the project description, alongside other audit documents were verified.

Facility Audit	
Type of audit	Combined Facility and Output Audit
General Rules version	General Rules v4.2
Methodology name	Enhanced Rock Weathering
Methodology edition and version	Edition: 2022 Version: V2
Date of audit completion	02 December 2025
Conclusion of audit	Qualified Positive Validation and Verification Statement
Auditing body	Eco Engineers
Start date of crediting period	13 June 2024
End date of crediting period	12 June 2029
This table is filled in by the Issuing Body.	

2 Overview of activity, its location, and operators

The information in this section provides an overview of how and where carbon dioxide removal is achieved, and by whom.

2.1 Non-technical description

Instructions	*Please provide a non-technical description of the carbon removal activity taking place at the production facility. Word limit: 100 words.*
Non-technical description	Sourcing basalt waste product feedstock from Wisconsin quarry, Lithos partners with surrounding nearby producers to apply this feedstock as a soil amendment onto working agricultural lands. The amendment assists in soil pH management practices, additionally providing other nutrients such as phosphorus and potassium. To empirically verify basalt dissolution, soil samples are collected prior to application, immediately after application and subsequently at fixed time intervals. Carbon dioxide removal (CDR) was quantified based on the Puro Enhanced Rock Weathering Methodology 2022 Edition, v2.0.
This table is filled-in by the supplier and verified by the auditor.	

2.2 Locations

Instructions	*Please provide a list of locations associated with the carbon removal activity. Additional locations or areas can refer to e.g. the location of the storage site, the spatial extent of the area of use of a carbon removal product or sourcing of a specific feedstock.*
Production Facility Location (as registered)	Address: [redacted] *WI* Coordinates (WSG84, decimal format): Latitude: [redacted] Longitude: [redacted]
Additional location(s)	*Specify purpose, location, address, coordinates, to the extent possible, for one or multiple additional locations relevant to the removal activity.* Nearby Wisconsin region producers/farms / working agricultural land. These application sites extend from a radius of the feedstock source.
This table is filled-in by the supplier and verified by the auditor.	

2.3 Operators

Instructions	*Please provide a full list of operators or organizations that contribute to the removal activity. Add rows as necessary. For each entity, provide the name, a business ID, an address, and the role of the entity.*
CO_2 Removal Supplier	*Entity name: Lithos Carbon* *Entity business ID: NA* *Entity address: 1111B S Governors Ave #6084 Dover, DE 19904* *Role of entity: Project Developer*
Organization 2	*Entity name:* [redacted] *Entity business ID: NA* *Entity address:* [redacted] *WI* *Role of entity: Feedstock, soil amendment, vendor*
This table is filled-in by the supplier and verified by the auditor.	

3 Technical description of the removal activity

The information in this section provides more technical details about the technologies and processes deployed to achieve carbon dioxide removal.

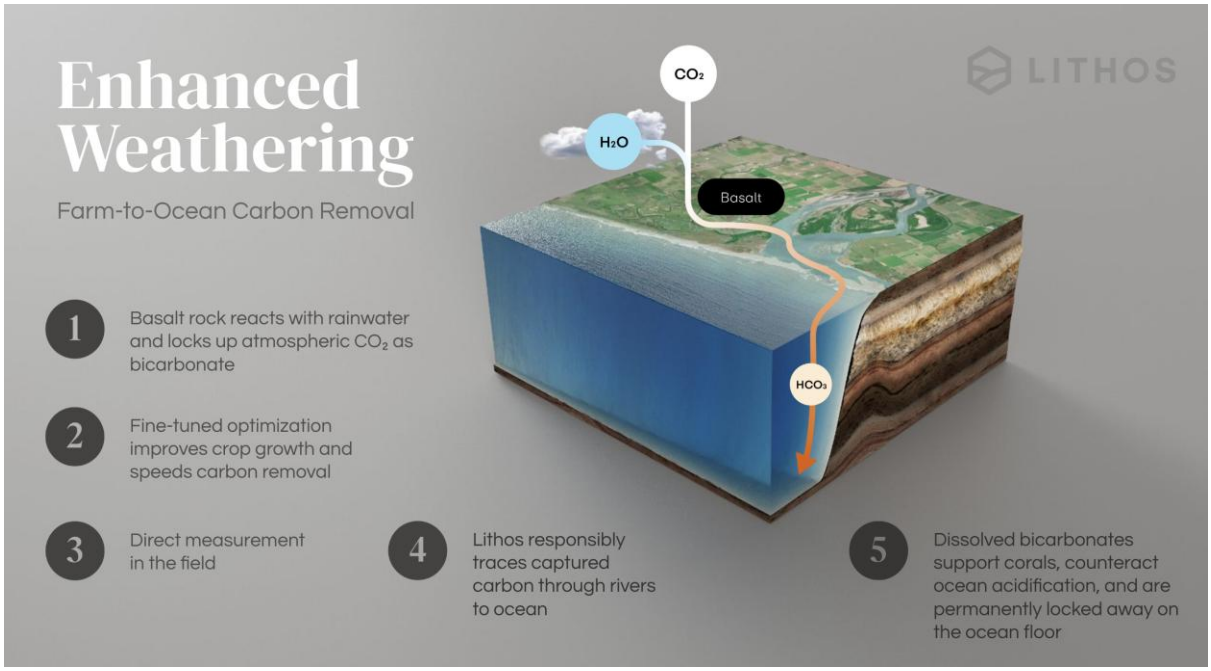
3.1 Technical description

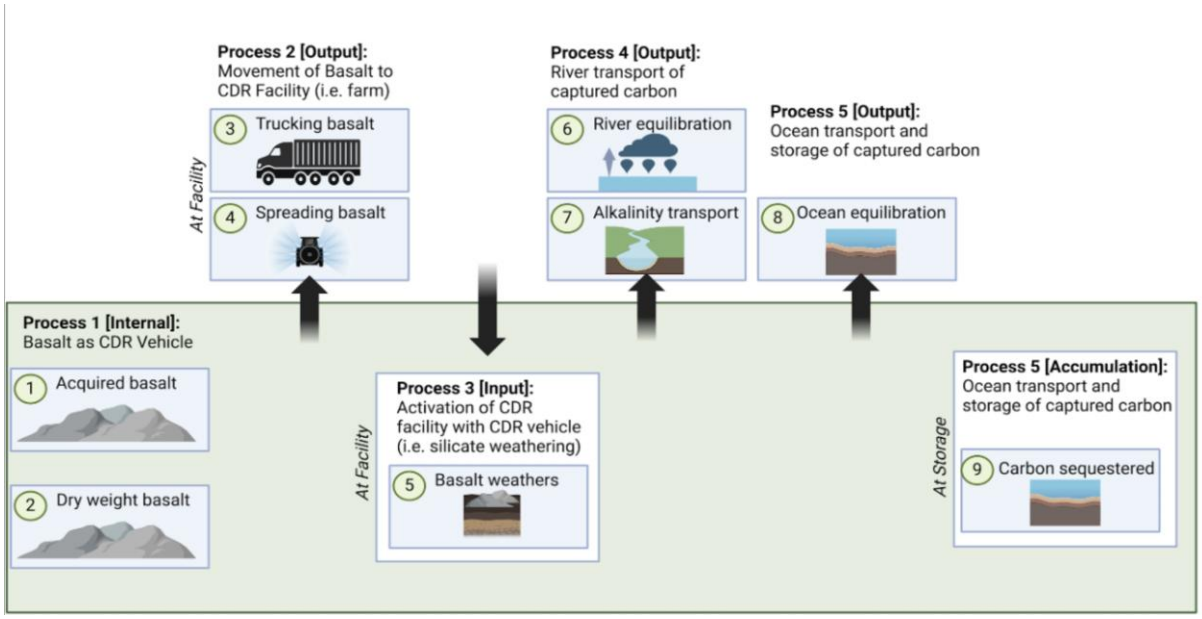
Instructions	*Please provide a technical description of the carbon removal activity taking place at the production facility. Word limit: 500 words.*
Technical description	Lithos is an enhanced rock weathering company that continually deploys superfine basalt silicate feedstock. The feedstock comes from a fully compliant aggregate quarry, operating under an active U.S. Mine Safety and Health Administration (MSHA) permit. The basalt feedstock is a waste byproduct of routine rock quarrying operations. With 90% of particles smaller than 990 microns, it has little to no value for conventional construction markets and no other commercial applications. This lack of market demand allows Lithos Carbon to secure substantial quantities of highly reactive, superfine material that would otherwise remain unused. By redeploying this quarry waste in local agricultural settings, Lithos unlocks meaningful carbon dioxide removal (CDR) potential. Lithos sources strictly local businesses to reliably transport procured superfine basalt to growers within a certain distance of the quarry. Lithos then sources local agricultural equipment to spread feedstock or apply this feedstock onto agricultural working lands at pre-determined application rates to manage soil pH. Typical agricultural equipment used by vendors are traditional agricultural equipment such as paddles or a spinning disc. To verify changes in soil characteristics, Lithos contracts soil samplers over a series of sampling events to collect topsoil samples for analysis and archiving. Sampling events occur prior to application, immediately after application and subsequently at various time intervals throughout several growing and harvesting seasons. Each soil sample is split for analysis by two types of 3rd party commercial laboratories: one for conventional agricultural testing and another for geochemical testing. Results from lab testing are then used to validate the impacts the soil amendment feedstock has on soil health and to quantify the CDR. Regarding the fate of the captured carbon within the soil, post-weathering alkalinity transport is conservatively evaluated by attributing discounts towards the total CDR potential measured from the basalt weathering amount. Sub-processes such as alkalinity re-equilibration in riverine and ocean environments are modeled and estimated conservatively. These discounts are accounted for upfront on the CDR estimates from basalt weathering so as to account for any uncertainties that may occur between feedstock dissolution at the soil phase to alkalinity/weathering product transport within the river and ocean boundary conditions.

This table is filled-in by the supplier and verified by the auditor.

3.2 Illustration

Instructions	*Please provide up to three illustrations of the process and technologies described above (e.g. picture of equipment, flowcharts of process). Note that you must own the rights to reproduce and publish the illustration and that you also authorize puro.earth to reproduce and publish the illustration in the Puro Registry.*
Authorization to reproduce and publish the illustration	☒ Puro.earth is authorized to reproduce and publish the illustrations below, for use in the Puro Registry.





4 Application of the Puro Standard (boundary, baseline, additionality, quantification)

4.1 Scope and project boundary

Instructions	*Please provide a brief demonstration that the removal activity described above fits within the scope of the methodology and that the system boundaries of the removal activity correspond to the ones defined in the methodology. Word limit: 150 words.*
Scope and system boundary	The CDR activity falls well within the Generic Process Boundaries for ERW in Soils defined by the Puro ERW Methodology 2022 Edition, v2.0, Section 5.1.3. Lithos accounts for activities within the categories of: procurement of feedstock, transport to application site, application to site, weathering phase, and carbon fate in the environment. Lithos procures quarry waste feedstock as-is. This feedstock is applied onto surrounding geographical soils. The defined climatic area for Wisconsin is humid continental. The environmental risk assessment provides identified risks and their mitigation plan.
This table is filled-in by the supplier and verified by the auditor.	

4.2 Baseline scenario

*The information in this section provides a summary of the project-specific **baseline scenario**.*

Instructions	*Please provide a summary of the project-specific baseline scenario. The summary shall be based on the additionality questionnaire (available separately). Word limit: 150 words.*
Summary of the project-specific baseline scenario	
Specific to the project specific boundary conditions defined in Section 5.1.3, baseline scenario for the successful progressive weathering of the basalt amendment, leading to carbon capture and storage, is compared critically against business-as-usual (BAU) scenarios. Lithos compares its CDR activity against agricultural practices that would occur without the ERW project development. Lithos actively screens and qualifies projects, the	

field management practices, to the best ability, characterize projects and their subsequent baseline scenario. Growers are qualified and screened before hand for their liming and other agricultural management practices for applicability. Lithos documents any provided information that may lead to any counterfactual scenario. In addition, baseline or control agronomic pH indicators also inform soil conditions of baseline scenarios. The feedstock acquired as-is or burden free, as described above, is a waste byproduct created during standard crushing and grinding to produce aggregate product. Lithos does no further processing, procures, and arranges 3rd party logistics and applications as-is. In a counterfactual scenario, this aggregate facility operations would still produce aggregate, as is the case, all of the revenue for this quarry is directly attributed to aggregate sales. Historical and as is the continuing practice, mill waste fines are stored in outdoor impoundment. Alternate fate scenarios to understand the weathering potential difference of the feedstock storage (waste) pile vs feedstock spread onto agricultural farm land. To assess the weathering potential for feedstock water exposure after rainfall, we estimate the penetration depth of water into the feedstock pile at the quarry. With a water infiltration rate of 10 mm hr-1, we estimate that feedstock spread across farmland would be exposed to water within 15 min, while it would take 50,000x longer (1.6 years) to expose the entire feedstock pile in a singular rain event. This demonstrates that only the surface of the feedstock pile is realistically exposed to weathering.
This table is filled-in by the supplier and verified by the auditor.

Further information on the baseline scenario:

Instructions	*If the methodology explicitly defines one or several possible baseline scenarios for the removal activity, please specify which ones was selected:*
Selected baseline scenario	
This table is filled-in by the supplier and verified by the auditor.	

4.3 Demonstration of additionality

*The information in this section provides a summary of the project-specific **additionality assessment**.*

Instructions	*Please provide a summary of the project-specific additionality assessment, considering baseline removal, regulatory and financial additionality. The summary shall be based on the additionality questionnaire (available separately). Word limit: 150 words.*
Summary of additionality assessment	
Under baseline conditions, croplands in the region would continue relying on conventional liming for soil pH management practices. However regionally, liming is very difficult to obtain at reasonable cost and is not commonly practiced. Before any deployment, Lithos actively questions and documents the existing farming practice to qualify a project. No existing federal or state laws mandate and current agricultural nutrient management guidelines do not incentivize such activities. Financially, ERW is not yet economically viable without carbon credit revenues; costs include rock procurement, transport, application, and MRV. Therefore, revenue from carbon markets is essential to enable	

project implementation. These conditions demonstrate the additionality and reliance on carbon finance in the simple cost analysis.
This table is filled-in by the supplier and verified by the auditor.

The following files are further made available in the Puro Registry.

Additionality questionnaire (required)	Filename	Puro Additionality v1.9 v4
	Description	Additionality questionnaire signed and audited, used to determine the additionality of the project following the Puro requirements for additionality.
Additional file (optional)	Filename	
	Description	
Additional file (optional)	Filename	
	Description	
Add rows as necessary, following same template as for additional file. The filename shall be the exact filename as provided in the audit documentation. The description shall be at most a 3-line summary of what the file contains. This table is filled-in by the supplier and verified by the auditor.		

4.4 Quantification of net carbon dioxide removal

*The information in this section provides a description of how **quantification of net carbon dioxide removal removals** is achieved, including **monitoring** of the removal activity, and calculation of **supply-chain emissions**.*

Quantification implementation

Instructions	*Please describe how the quantification of net carbon dioxide removal, as described in the methodology (see CORC equation), is implemented by the supplier. Word limit: 200 words.*
Description of quantification implementation	

The CORCs equation is used from the ERW Methodology Section 6.1, 6.2, and 6.3. The total net CO_2 equivalents removed from the atmosphere by the applied weathering basalt after a given time horizon (ton of CDR) is defined as the total amount of CO_2 captured and stored via weathering minus the project emissions, leakage, and downstream loss.

$$CORCs = C_{stored} - E_{project} - E_{leakage} - E_{loss}$$

- C_{stored} values quantified from direct soil samples, 3rd party laboratory chemical characterization, and final cation mass balance. Using mobile cation mass balance, and data from empirical measurements, the fraction of feedstock dissolution given the monitoring time frame is determined as fractional weathering. Feedstock characterization and the use of modified Steinour Formulation provides an equation to determine the Cstored for the given period of time.
- $E_{project\_emissions}$ account for project emissions, for example 3rd party logistics, 3rd party spreading activity, MRV activity. More detail is discussed in this document.
- $E_{leakage}$ is null as the activities discussed here within do not displace another. See above descriptions.
- E_{loss} losses account for the sub-processes such as alkalinity re-equilibration in riverine and ocean environments. In addition, plant uptake losses. This project uses the protocol prescribed values for each of these loss terms.

This table is filled-in by the supplier and verified by the auditor.

Monitoring and reporting

Instructions	*Please provide a summary of the monitoring procedures and monitoring plan which are in place at the production facility to ensure i) the safety of the removal activity, ii) the eligibility of the removal activity, and iii) the precise quantification of CORCs. The summary shall be project-specific and based on related evidence pieces that were submitted in the audit documentation.* *Word limit: 500 words.*

Summary of monitoring and reporting plan

Lithos Carbon's monitoring plan for its enhanced rock weathering deployments in the U.S. Midwest ensures safety, eligibility, and accurate CORC quantification, as detailed in the "Monitoring Plan for Enhanced Rock Weathering Deployment in United States Midwest" document.

i) Safety of the Removal Activity:
Lithos conducts Environmental Risk Assessment (ERA) monitoring, focusing on heavy metals and agricultural impacts. Procured basalt feedstock is characterized for low heavy metal concentrations, with levels remaining below EPA Region 4 Environmental Screening Values after application. Background chromium levels are monitored, and literature-based estimates confirm negligible mercury introduction. Soil metal concentrations are tracked at baseline, post-application, and in subsequent samples. For agricultural impacts, Lithos monitors geochemical and agronomic indicators like pH, cation exchange capacity, and crop yield pre- and post-application. Collaboration with land managers addresses any adverse effects, and Lithos supports soil-enhancing practices.

ii) Eligibility of the Removal Activity:
Eligibility is verified by monitoring crop yield, field management, basalt tonnage and acreage, and feedstock characteristics. Crop yield data and field practices (fertilizer, tillage, crop rotations) are documented. Basalt tonnage is accurately tracked via integration supplier database and validated by invoices, with scales calibrated quarterly. Field acreage is verified by GIS specialists reconciling farmer-provided maps with satellite imagery. Feedstock (basalt fines) undergoes rigorous testing for moisture, total neutralizing value, specific surface area, particle size, elemental composition (ICP-OES and ICP-MS), loss on ignition, and mineralogical composition (XRD).

iii) Precise Quantification of CORCs (Monitoring Method, Parameters, & Analytical Testing):
CORC quantification relies on robust sampling, analytical testing, and lifecycle emissions monitoring. Third-party agricultural service providers collect direct soil measurements at prescribed depths and sampling density guided by GPS-located points. Sampling occurs at baseline (pre-application), baseline post-spread (post-application), and at regular weathering intervals. Samples are analyzed by commercial 3rd party labs for agronomic parameters (pH, CEC, organic matter, base saturation) and geochemical elemental analysis (base cations, trace elements) using ICP-MS/OES. These commercial labs adhere to ISO/IEC 17025:2017 standards for quality assurance and control. Climatic data (temperature, precipitation, humidity, wind, soil temperature/moisture) is obtained from local weather station. Lifecycle emissions from feedstock, transportation, application, and MRV are also monitored and stored using cloud data systems.

This table is filled-in by the supplier and verified by the auditor.

Optionally, the following documents may be made available in the Puro Registry once the facility has completed its first Output Audit:

Can the monitoring plan and procedures be made available in the Puro Registry?	
Answer	☐ Yes, entirely. ☐ Yes, in a redacted version. ☒ No. If no, please provide a reason: Monitoring plan contains confidential business information.
Filename(s) to be made public	
This table is filled-in by the supplier.	

Supply-chain emissions

The determination of the supply-chain emissions of the removal activity shall be based on a project-specific life cycle assessment, made of a report and calculations. Calculations are updated at least annually, during the Output Audits, with data captured through above-described monitoring.

Instructions	*Please provide a summary or an abstract of the LCA performed. Word limit: 500 words.*
Summary of life cycle assessment	
The lifecycle analysis adheres to the guidelines of ISO 14067:2018. Lithos considers the activities as provided in the early section of this document. A system boundary and process model is developed. The bounds of the lifecycle analysis considers the third-party logistics for transportation, third-party services for applying the alkaline feedstock, all related MRV activities: 3rd party soil sample travel, supplies, sample shipment, and chemical analysis. The calculation methodology uses appropriate full-lifecycle emission factors from California Air Resources Board and US GREET. Each of the processes are characterized with identified data points to perform the relevant calculation. Sensitivity analysis and omitted flows are quantified and detailed with appropriate documentation as needed. Lithos is committed to continuously improving its project carbon accounting to ensure fairness, accuracy, and transparency.	
This table is filled-in by the supplier and verified by the auditor.	

Optionally, the following documents may be made available in the Puro Registry once the facility has completed its first Output Audit:

Can the LCA report be made available in the Puro Registry?	
Answer	☐ Yes, entirely. ☐ Yes, in a redacted version. ☒ No. If no, please provide a reason: LCA contains confidential business information.
Filename(s) to be made public	
This table is filled-in by the supplier.	

5 Social and environmental safeguards

The information in this section provides a summary of the project-specific measures taken to avoid and minimize negative social and environmental effects, as well as maximize positive impacts contributing to the sustainable development goals (SDGs).

5.1 Stakeholder engagement

In line with the Puro General Rules, the CO_2 Removal Supplier must have conducted a stakeholder engagement process and reported its outcome in a written format.

Instructions	*Please reproduce the summary of the stakeholder engagement report. Word limit: 500 words.*

Summary of stakeholder engagement

Lithos completed a stakeholder engagement report that adheres to Puro General Rules 4.0 and Puro Stakeholder Engagement Requirements, information was provided without private individual information.

Identified Stakeholders:
Lithos Carbon identifies stakeholders across three operational steps: feedstock procurement (local quarry/fines vendors), feedstock logistics (3rd party logistics, agricultural nutrient spreader services, growers), and feedstock MRV (agronomists, soil sampling service providers). Other identified stakeholders include farm producers with land-tenure rights, local state conservation district authority, farmer cooperatives, small and historically underserved farm producers, local university soil science and agricultural-extension schools, and nationwide/local grower associations.

Consultation Activities and Outcomes:
Lithos Carbon conducted various consultation activities from February 2023 to September 2024, including "Growers Meet Lithos" direct information sessions, multiple Soil and Water Conservation District Meetings, a Farm Foundation Round Table, a Soil Analysis and Plant Testing Working Group Annual Meeting, a State Chamber of Commerce meeting, and an [redacted] Meeting. Lithos also conducted several "Direct information sessions" through door-to-door visits between 2023 and 2024. Invitations were sent out via social media publications and opt-in SMS/phone calls for various direct contact campaigns.

Information provided to stakeholders included details about Lithos Carbon, co-benefits of basalt soil amendment, application considerations, and basalt composition/effects. Feedback primarily focused on safety, material handling, and on-site logistics. Lithos responded with FAQs, 1-on-1 consultations, and site consultations. To address feedback, Lithos has already made operational changes such as: implementing good stewardship practices with 3rd party logistics vendors (e.g., pro-actively scouting sites before feedstock drop-off), and developing specific application prescriptions and logistics to mitigate soil compaction.

Plans for Continued Consultation:
Lithos Carbon plans ongoing engagement through regular scheduled follow-up calls and on-site visits with growers. This includes feedback mechanisms for compliance, environmental concerns, and social benefits, and an open-door policy with assigned account managers for knowledge sharing and issue resolution. Lithos also maintains a comprehensive treatment database with grower-dependent data-sharing access for soil sampling results, and conduct post-application grower surveys/feedback forms to increase feedback quality, maintain relationships, and monitor impact.

This table is filled-in by the supplier and verified by the auditor.

In addition, the following documents are made available in the Puro Registry once the facility has completed its first Output Audit:

Stakeholder Engagement Report (required)	Filename	Puro Stakeholder Engagement Report v3
	Description	Stakeholder engagement report completed and audited, following the Puro requirements for stakeholder engagement.
The filename shall be the exact filename as provided in the audit documentation. This table is filled-in by the supplier.		

5.2 Environmental and social safeguards

In line with the Puro General Rules, the CO_2 Removal Supplier must ensure that environmental and social safeguards are in place.

Instructions	*Please summarize the environmental and social impacts relevant to the project, based on the answers provided to the corresponding questionnaire in the audit documentation. Word limit: 500 words.*

Summary of environmental and social safeguards questionnaire

Environmental Impacts and Management:
Lithos Carbon has conducted an environmental risk assessment (ERA) and concluded minimal risks. Potential impacts and their mitigation include:

- **Pollutant discharges to air (dust):** Dust generated is contained to the farm and dissipates to background levels within 100m. Operators use equipment with enclosed cabs, and N-95 masks are supplied.
- **Pollutant discharges to water and soil:** ERA concluded no significant contribution of contaminants of potential concern (COPCs) beyond baseline soil conditions.
- **Noise and Vibration:** Standard farm equipment operation for an additional week is not considered substantial enough to impact communities.
- **Waste:** Unused or excess basalt material is collected, transported off-site, and properly disposed of.
- **Hazardous materials:** Basalt feedstock does not contain chemical pesticides or fertilizers.
- **Biodiversity and natural resources:** Operations are on historical farmland, not near environmentally sensitive areas or protected habitats. No credible threat to ecology, water, soil, groundwater, or air quality was identified.
- **Soil degradation and erosion:** Activities are believed to enhance soil health, increase cation exchange capacity, and improve moisture retention. Regular soil analysis monitors these impacts.
- **Water consumption:** Project listed is not in a water-stressed area.
- **Natural forests or high conservation value habitats:** Operations are strictly on agricultural lands and do not impact forests.

Social Impacts and Community Relations:

- **Community health and safety:** Lithos transparently reports activities to farmers and community members, aiming for public engagement and support.
- **Cultural heritage:** Operations are solely on agricultural sites and do not impact religious or cultural sites.
- **Forced physical and/or economic displacement:** The activity does not result in forced physical or economic displacement.
- **Indigenous peoples:** Lithos activities do not impede on protected lands or pose credible risk to Indigenous Nations connected to watersheds. Lithos is committed to human rights and engaging all stakeholders.

Labor Practices and Rights: Lithos complies with national and local laws, human rights, and labor practices.
This table is filled-in by the supplier and verified by the auditor.

In addition, the following document is made available in the Puro Registry once the facility has completed its first Output Audit:

Environmental and Social Safeguards (required)	Filename	Puro Environmental and Social Safeguards MW v1
	Description	Questionnaire based on a template provided by Puro, to ensure compliance with the Puro General Rules, regarding social and environmental safeguards.
The filename shall be the exact filename as provided in the audit documentation. This table is filled-in by the supplier.		

5.3 Permits, risk assessments and impact assessments

Depending on the nature and scale of the removal activity, the CO_2 Removal Supplier may have obtained permits or conducted specific environmental assessments (e.g. Environmental and Social Impact Assessment, Environmental Risk Assessment) for compliance with local laws and regulations.

Were the obtention of one or several construction or environmental permits required for the removal activity, for compliance with local laws and regulations?	
Answer	☐Yes, permits were required and successfully obtained. ☒ No, permits were not required.
Permits obtained	Name of permit: ID of permit: Issuer of permit: Date of issuance: Permit file (.pdf): Permit URL (if available):
If several permits were obtained, provide the information for each of them. This table is filled-in by the supplier and verified by the auditor.	

Was an environmental and social impact assessment study (EIA) conducted?	
Answer	☐ Yes, an EIA was legally required and thereby conducted. ☐ Yes, an EIA was not legally required but conducted voluntarily. ☒ No, an EIA was not legally required and not conducted.
EIA Report (if conducted)	Title of study: Filename of report: Can the report be published in the Puro Registry: No
This table is filled-in by the supplier and verified by the auditor.	

Was an environmental risk assessment study (ERA) conducted?	
Answer	☐ Yes, an ERA was legally required and thereby conducted. ☒ Yes, an ERA was not legally required but conducted voluntarily. ☐ No, an ERA was not legally required and not conducted.
ERA Report (if conducted)	Title of study: Environmental Risk Assessment for Enhanced Rock Weathering Deployment in United States Midwest Agricultural Soils Filename of report:Lithos_Enviornmental_Risk_Assessment_MWv1.pdf Can the report be published in the Puro Registry: No
This table is filled-in by the supplier and verified by the auditor.	

5.4 Positive impacts on SDGs

Depending on the nature of the removal activity, the activity may have positive impacts on the UN Sustainable Development Goals (SDGs).

Instructions	*Please provide a summary of the positive impacts on the SDGs that the removal activity has or plans to has. This summary shall be project-specific and based on related evidence pieces that were submitted in the audit documentation (SDG Reporting files). Word limit: 150 words.*
Summary	This project contributes to social, environmental, and economic co-benefits. Environmentally, deploying superfine basalt supports healthier soils, strengthens agricultural resilience, and promotes sustainable land management. Socially, the project advances equity by channeling work to minority and small medium businesses. As of the 2022 USDA survey, 97% of the farms are family owned for this Wisconsin county. These activities bring investment and opportunity to communities where they matter most. Economically, the project builds grower partnerships, supports local haulers and soil professionals, and stimulates rural economies. Collectively, these benefits align with SDGs for sustainability, inclusion, and climate action.
This table is filled-in by the supplier and verified by the auditor.	

In addition, the following document is made available in the Puro Registry once the facility has completed its first Output Audit:

SDG Reporting (required)	Filename	Puro SDG Report Lithos Mid-West Facility.docx
	Description	SDG Reporting based on a template provided by Puro, disclosing with SDG indicators are reported and how they are or will be demonstrated.
The filename shall be the exact filename as provided in the audit documentation. This table is filled-in by the supplier.		

6 Other documents available in the Puro Registry

Alongside this project description, several other documents are made available in the Puro Registry for more details.
The documents referenced in this project description are compiled in the following table:

Instructions	To finalize the project description, please list the names of all the public documents to be made available in the Puro Registry, in the order they appear, specifying the number of pages of each document. Add rows as necessary.	
#	**Document names**	**No of pages**
1		
2		
3		
4		
5		
6		
7		

8		
9		
10		
This table is filled-in by the supplier.		

Besides the documents referenced in this project description, the 3rd-party auditor has reviewed a complete audit package containing numerous documents, performed a site visit, and prepared an audit report and statement.
The facility described here will further be audited annually, in Output Audits, to verify the performance of the removal activity, resulting in the issuance of CORCs. All audits lead to audit reports and statements, which will be available in the Puro Registry, alongside further details on CORC quantification for each monitoring period.

Baseline and Additionality Assessment

The baseline and additionality assessment is a requirement for eligibility under the Puro Standard. The assessment is made by the CO2 Removal Supplier and verified by the independent 3rd party auditor. **The assessment made in this document will be publicly available in the Puro Registry.**

The Puro Standard only certifies durable carbon removals from the atmosphere that are net-negative and does not certify emissions reductions or avoidance. The CORCs (Carbon dioxide removal certificates), issued therefore represent a net carbon removal (1 $tCO_2eq.$ net) from the atmosphere to a durable storage of minimum 100 years, and for mineralization and geological storage minimum 1000 years. Net carbon removal is determined from stored gross CO_2 volume by subtracting supply-chain emissions from the project, any re-emissions over the guaranteed storage time, any baseline removals taking place in a baseline scenario, and any negative indirect leakage effects relative to the baseline scenario.

The CO_2 Removal Supplier must in this assessment:

- **Define** and quantify all reasonable **baseline alternatives** to the proposed project activity to remove carbon with carbon financing. A baseline is a scenario that reasonably represents the natural and anthropogenic carbon removals to a permanent storage (storage durability over 100 or 1000 years) in the absence of the carbon removal activity proposed by the CO_2 Removal Supplier. Although anthropogenic emissions may take place in the baseline scenarios, these emissions do not constitute a reference point for the quantification of CORCs (only the baseline removals do).
- Demonstrate **carbon additionality to the baseline,** meaning that the project must convincingly demonstrate that it is resulting to higher volumes of carbon removals than the likely baseline alternatives (question A1 and A2.).
- Demonstrate **regulatory additionality,** meaning that the project is not required by existing laws, regulations, or other binding obligations (question A4.).
- Demonstrate **prior consideration of carbon credits** through documentation demonstrating that the time period between the commitment date and production facility audit is max. 3 years. (question A5)
- Demonstrate **financial additionality,** meaning that the CO_2 removals achieved are a result of carbon finance. This means that the CO_2 Removal Supplier must show that the carbon credits were needed to secure the investment or to overcome specific barriers to the investment.
- To support the claim the of financial additionality, the project activity cannot already be *common practice* without carbon finance (question A6).

Reference documents: Puro Standard general Rules v4.0, section 6.5 and Additionality Assessment requirements v2.0.

contact@puro.earth Puro.earth Oy, Tammasaarenkatu 1, 00180 Helsinki, Finland https://puro.earth

1. General questions to all CO_2 Removal Suppliers

A1. Baseline Determination			
Activity name	**Activity description**	**Removals to storage (100+ yr) due to project activity (human activity)**	**Natural removals to storage (100+ yr), not man-made**
Baseline: *Basalt Dust Pile Weathering, Farm Fields without Basalt*	Without Lithos project activity, basalt dust is stored in large open air piles in quarry waste storage areas. To assess the weathering potential for feedstock water exposure after rainfall, we estimate the penetration depth of water into the waste pile. With a water infiltration rate of 10 mm hr-1, we estimate that feedstock spread across farmland would be exposed to water within 15 min, while it would take 50,000 longer (1.6 continuous years) for a comparable rain event to penetrate the depth of a consolidated waste pile, resulting in minimal counterfactual weathering. Additionally, Spreading of basalt rock as a soil amendment is not a standard practice in the project area. Lithos is the only spreader of basalt rock in the region. Thus no weathering occurs without Lithos project activity.	None	None
Project activity: *Basalt Spreading as Soil Amendment*	Spreading of basalt rock on farm fields leads to CO2 removal. Lithos estimates a gross carbon removal potential of approximately 15.4 ± 4.1 tons CO2e/hectare in the project area. Enhanced weathering in the U.S. Corn Belt delivers carbon removal with agronomic benefits (Beerling, et. all)	15.4 ± 4.1 tons CO2e removal per 1 hectare	None
Alternative scenario: *Regenerative Agriculture Practices*	Regenerative agriculture practices are not practiced widely in the region https://roads2removal.org. No regenerative agriculture is practiced in [redacted], WI	0 tons CO2e removal per 100 hectare per year.	None

A2. Does the project lead to higher volumes of durable carbon removal than the baseline?	Yes / No
Yes. Currently, basalt is not used as a soil amendment for soil management of working US agricultural lands. A prevalent technique for management of acidic soils is liming [1]. However, economic factors and access to lime limits this practice for many growers in the project area. Additionally, Lithos qualifies and evaluates every potential application area to specifically include only fields that have not received liming in the previous 10 years to our best ability. This ensures greater carbon capture from Lithos project activities over baseline.	Yes

[1] https://content.ces.ncsu.edu/soil-acidity-and-liming-basic-information-for-farmers-and-gardeners	

A3. Is the project scenario aligned with net-zero transition? The following activities are considered not to be aligned with net-zero transition: a) directly leading to an increase in the extraction of fossil fuels, b) relating to coal-fired electricity generation, or c) involving other unabated fossil fuel-powered electricity generation, other than new gas-fired generation that is part of increased zero-emissions generation capacity in support of national low carbon energy transitions	**Yes / No**
a) Does not lead to an increase in extraction of fossil fuels. Feedstock is a quarry waste fine. b) Not related to coal-fired electricity generation c) Not related to electricity generation, no association with the US regulated or unregulated power sector	Yes

A4. Is the project required by existing laws, regulations, or other binding obligations?	**Yes / No**
Application of soil amendments is a voluntary practice in the US.	No

A5. What was the Commitment Date of this facility? Commitment Date is defined as "The calendar date on which the CO_2 Removal Supplier committed to implementing the CO_2 Removal activity (e.g., the date when contracts for the purchase or installation of equipment required for the mitigation activity were signed). In the case where a mitigation activity does not involve capital expenditure, it refers to the date when the first physical actions were taken to implement the mitigation activity." If an exception listed in clause 2.1.3 of the Additionality Assessment Requirement applies, describe the situation here.	**Date**
Date of commencement of project activities as determined by first spreading event.	6/13/24

A6. Is the Technological Readiness Level of the Methodology 8 or 9?	**Yes/No**
In reference to Puro additionality assessment v2.0, section 3.2.2. Table 1 page4, enhanced weathering TRL is 3-4.	No

If the answer to question A6 is Yes, please answer question A6.1 to A6.3. Questions A6.2 and A6.3 are different based on whether you are applying a distributed technology (such as enhanced rock weathering) or more centralized technology based on plants/factories producing something. See clauses 3.2.5 and 3.2.6 in the Puro Additionality Assessment Requirements with references for more information.

A6.1. Please define the region being considered and explain why it is relevant level of aggregation for the assessment if different from the host country.
N/A

A6.2. Market size or current installations **Distributed technology:** What is your estimate for a realistic target market size and what constraints to the market size growth have you identified? **Centralized technology (plants):** What projects have you identified that fulfil the criteria in Additionality Assessment Requirements clause 3.2.6? a) output range of +/- 50% of the project,

b) located in the same region, c) applying the same measure, d) produce comparable goods or services in terms of quality, properties, and applications, e) started commercial operation before the proposed start date of the project, and f) are not registered in a carbon crediting program. How many of them apply a different technology? **Please mention or link to any sources you have.**
N/A

A6.3. Market penetration rate **Distributed technology:** What is your estimate of the market penetration rate of the activity? How common or widespread is the project activity or similar activities in the relevant sector and region, and what is the trend of adoption over time? **Centralized technology (plants):** Provide your calculation of market penetration rate based on the formula in clause 3.2.6 in Additionality Assessment Requirements**.**
N/A

A7. Does the carbon removal project have other income sources besides carbon finance? Include also information about any subsidies you receive or expect to receive. Please describe your business model here, in a short answer (max. 100 words).	**Yes / No**
No subsidies. Lithos cost structure involves procuring basalt waste fines, logistics of applying waste fines to agricultural lands, and the continual measurement of the soil for carbon removal. Business revenue is the delivery of measured carbon removal for fulfilling carbon removal contracts.	No

Please note: Questions under headings '2. Simple cost analysis', '3. Investment analysis', and ' 4. Barrier Analysis' are mutually exclusive options.

2. Simple cost analysis or investment analysis

Some projects may demonstrate additionality through simple cost analysis: this is applicable for projects that have no other source of income besides carbon finance or where ex-ante investment analysis is not applicable, because capital expenditure (capex) is modest compared to operating expenditure (opex). This can include e.g. enhanced rock weathering projects.

B1. Describe how the criteria above applies to your project
Lithos' main business activities are as follows: sourcing feedstock (silica rock), distributing feedstock, and measuring the effects of feedstock application. The only source of revenue for these activities are from carbon offset credits.

B Simple cost analysis	**Project response**
B2. Please describe your cost structure here and include evidence in attachment.	Enhanced rock weathering cost structure has 3 main components. 1. Feedstock – acquisition of basalt rock 2. Logistics – movement and spreading of basalt onto agricultural lands 3. Monitoring – measurement recording and validation of activity
B3. Please summarize the simple cost analysis here. Please include any public subsidies received or expected. Compare with alternative scenarios, if relevant.	The simple cost of goods analysis is performed on two cost basis, basalt feedstock and potential CO_2 removed basis. Basalt Basis Activities outlined above, feedstock, logistics, monitoring, are assigned representative cost amounts. These amounts are then divided by the amount of basalt applied thereby calculating per ton basalt cost basis. CO_2 Potential Basis The cost of activities is calculated on a per ton of potential CO_2 removed basis. The critical assumption in this analysis portion is the conversion from basalt to carbon dioxide removal potential or weathering rate. This assumption is based on published amounts and Lithos empirical data. No public subsidies are received or expected. Revenue Revenue is a single stream, payment for carbon credits. Analysis Cost analysis shows no revenue without carbon credit

	revenue, making carbon credits essential for project finance.
B4. Please provide additional calculation spreadsheet in attachment. All formulas used in the spreadsheet shall be readable to the verifier and all relevant cells shall be viewable and unprotected. Mark confidential when needed.	Sample calculation provided
B5. Are you willing to provide full calculation spreadsheet to be visible in Puro Registry? If yes, please specify the name of the file that has been provided. If not, please ensure that there is sufficient information provided in your answers in this document.	No
B6. Is the information shared here consistent with information presented to the company's decision-making management, investors or lenders?	Yes
B7. Is the information shared here consistent with the information in the audit documentation presented to Puro and its verifiers (e.g. LCA model)? If not, please explain why there are differences.	Yes

3. Investment Analysis

CO_2 Removal Suppliers can be guided by the CDM Methodological Tool 27 of the UNFCCC Clean Development Mechanism "Investment Analysis" to demonstrate financial additionality with Investment Analysis.

C. Financial Additionality – Investment analysis	Project response
C1. Describe the relevant alternative scenarios in terms of investments analysis. **If the only alternative scenario is to carry out the project without CORCs, please answer the following questions:** **Please show your calculations to determine the benchmark rate for either equity IRR or WACC, whichever you are using. Please include documentation of how the rate is suitable for the technology and region. Please specify the currency and whether the rate is nominal or real.**	
C2. Please state how CORC revenues change the expected IRR or NPV of the project.	
C3. Please conduct a sensitivity analysis in relation to the investment analysis and summarize the results here.	
C4. Is the information shared here consistent with information presented to the company's decision-making management, investors, or lenders?	
C5. Is the information shared here consistent with the information in the audit documentation presented to Puro and its verifiers (e.g. LCA model)? If not, please explain why there are differences.	
C6. Are you willing to provide full calculation spreadsheet to be visible in Puro Registry? If yes, please specify the name of the file that has been provided.	
C7. If you are not willing to disclose the full spreadsheet, please provide here a summary of the confidential file that has been provided to the Auditor and Puro.earth. Please include: • **Overall description of the spreadsheet, including type of terms (real/nominal), currency, forecasting periodicity** • **Capital structure, if the measure is based on equity return** • **Information sources on main revenues and costs** • **Expected breakdown of income from the different sources** • **Expected or already received public subsidies** • **Growth assumptions** • **Model duration and a comparison with expected lifetime**	

4. Barrier Analysis

In Barrier Analysis only one barrier needs to be demonstrated but there needs to be clear, objective, and verifiable evidence to demonstrate its existence. If possible, please provide quantitative estimates for the barrier.

D. Barrier Analysis	No/yes	Project response
D1. Are there financial barriers? (e.g., financing is not accessible for the type of activity in the country due to the risks)		
D2. Are there institutional barriers? (e.g., the investor not being the beneficiary of cost savings associated with the investment)		
D3. Are there information barriers? (e.g., lack of awareness of the financial benefits of by-products)		
D4. Please explain how CORC revenues are crucial element in overcoming identified barrier(s)		
D5. Are there subsidies for the carbon removal activity? If yes, please explain how they are not sufficient to overcome the barrier.		
D6. Please attach verifiable evidence for the existence of the barrier and describe the evidence here. If the file can be included publicly in the Puro registry, please specify the name of the file here. If the evidence is not public, please ensure		

that you describe it in sufficient detail.		
D7. Please demonstrate that at least one other alternative in baseline determination (first question) does not face any significant barriers, including the barriers faced by your project.		

I hereby declare that all information provided is truthful and precise to the best of my knowledge.

X _____

Date, Place:
Representative name, title, organization

puro · earth

Environmental and social safeguards questionnaire

CO_2 Removal Supplier	Lithos Carbon
Production Facility	Lithos Carbon Midwest Facility
Production Facility ID	606367
Date of report last update (YYYY-MM-DD)	2025-09-13

Environmental and Social Safeguards Questionnaire

The purpose of this document is to provide a summary of how the CO_2 Removal Supplier complies with the environmental and social safeguards, as defined in Section 6.4 of the Puro General Rules 4.0. The responses from the supplier are expected to be commensurate with the identified impacts and risks.

This document consists of five sections, noting that the fifth section does not apply to all suppliers:

1. General overview and compliance
2. Labor practices and rights
3. Environmental impact and management
4. Social impact and community relations
5. Biomass sustainability

This document forms part of the evidence needed for the Production Facility Audit. It is corroborated by other documents and evidence provided by the supplier to Puro.earth and the 3rd-party auditors, demonstrating environmental and social safeguards. This questionnaire will be made **publicly available** in the Puro Registry.

1 General overview and compliance

Provide a description of your operations and the context where you are operating in, as relevant for environmental and social safeguards.
Lithos Carbon (hereafter Lithos) operates on agricultural lands (typically farm cropland) by spreading basalt rock dust as a liming substitute, nutrient fertilizer, and carbon removal technology in the state of Wisconsin, United States. In the region Lithos operates in, farmland has been in active use for generations. Lithos meets with farmers interested in treating their fields with basalt rock dust then determines operational field boundaries and develops a soil sampling plan. Prior to deployment of the basalt rock dust, Lithos works with local soil samplers to execute the baseline sampling plan. Lithos then arranges for transport of basalt rock dust to the farm site via hauling trucks. Lithos partners with local spreading partners to spread the basalt rock dust using combine spreaders across the pre-determined application area. After spreading, Lithos continues period soil sampling to monitor the weathering of material and environmental safeguard data, again working with soil samplers local to the region.

Provide an overview of the material environmental and social impacts and risks in your operations, and how they were determined.
Lithos has conducted a thorough environmental risk assessment (ERA) of our activities, including analysis of Contaminant/Constituent of Potential Concern (COPC) for leakage or exposure to soil, surface water, and groundwater; as well as risk associated with dust and particles created during deployment. Briefly, we concluded there are minimal risks from COPC exposure (by any receptor) and preventable harm by particles/dust formation through N-95 masking. The feedstock material is low in its concentrations of trace metals such as nickel, chromium and cobalt, and there are no known amphibole rock types within the quarry's mineralogical composition. Movement of the material on-site at the quarry and on the farms is completed using equipment whereby the operators have a cab to sit in. In addition, the moisture content of the basalt rock dust is regulated for optimal movement but minimizing propensity for particles to become airborne. We conducted this assessment both for human health and ecological receptors by computing a

conservative case scenario exposure point concentration and comparing to EPA regional screening levels and national water quality standards. Please see our ERA for more details.

Requirement: Abide by national and local laws, objectives, programs, and regulations and, where relevant, international conventions and agreements.	**Rule** 6.4.1.1.i
Do you comply with the requirement?	☒ Yes ☐ No
If not, how and why do you not comply? If yes, how do you know that you comply with the requirement? Please provide details considering the laws and regulations that are most relevant to your operations. Also, include any regulations that are specifically related to your carbon removal activities.	
Our activities will mainly be dictated, on a federal level, by the Clean Water Act, Clean Air Act, and Resource Conservation and Recovery Act. Drainage from farms has the potential to enter public waters, and as our ERA concludes, we do not ultimately release substantial material that would impact drinking water quality (the highest EPA standards) nor notably impact/seep into groundwater. In our ERA, we similarly conducted a PM10 regulation (regulated by Clean Air Act)and calculations about dust creation related to our activities. Ultimately, we concluded that the likely dust created is inconsequential to pose a risk to human health and dissipates to undetectable (above background) after 100 m from the point of spreading. The National Resource Conservation and Recovery act is also applicable in requiring Lithos to dispose of any excess dust and any parts of dust deemed unusable (i.e. improperly separated mine tailings, if any are observed).Relevant state regulations for Wisconsin are the Department of Environmental Quality, the agency that enforces the CWA on a state level, and the Mining and Energy Commission Regulations, which is not directly relevant to Lithos as it regulates the mining and generation of the feedstock. That is, our feedstock suppliers must be in compliance and Lithos will only operate with these suppliers if there is compliance.	
Identify any documents or other records that you rely upon to verify compliance.	
Click or tap here to enter text.	

Requirement: Respect for **human rights** and avoiding discrimination; abiding by the International Bill of Human Rights and universal instruments ratified by the host country.	**Rule** 6.4.1.1.ii
Do you comply with the requirement? Motivate below.	☒ Yes ☐ No
Lithos is fully compliant to federal and state equal opportunity employment regulation. During operations, strict adherence to US local and federal labor laws are maintained. Our operators do not permit continuous spreading in excess of regulations for operation of farm equipment, and mandatory breaks are enforced. As a US-based corporation, the sovereign rights of all human beings are respected.	

Requirement: Recognize, respect, and promote the protection of the rights of IPs & LCs (**indigenous peoples and local communities**) in line with applicable international human rights law, and the United Nations Declaration on the Rights of Indigenous Peoples and International Labor Organization (ILO) Convention 169 on Indigenous and Tribal Peoples.	**Rule** 6.4.1.1.iii
Do you comply with the requirement? Motivate below.	☒ Yes ☐ No
Lithos operates on Wisconsin farms and ensures compliance by engaging in transparent consultations with our agricultural operators. Our activities do not impede on any protected lands and as we monitor environmental discharges, we do not pose any credible risk to any Indigenous Nations connected to watersheds we operate in. To reiterate above, Lithos is committed to human rights in all efforts and while our operations have not resulted in any interactions with Indigenous Communities, we work closely with farmers who reiterate to us a deep respect and reverence for caring and respecting the lands they tend. Lithos aims to engage any and all stakeholders that wish to work with us in improving agricultural practices and carbon capture.	

Note that there is an additional question on free, prior, informed consent below (section 4), and there is a requirement to publish a separate stakeholder engagement report based on a Puro template.

2 Labor practices and rights

Requirement: Labor rights and working conditions, including prohibiting forced labour, child labour or trafficked persons whether in own operations or employed by third parties, fair treatment of employees.	**Rule** 6.4.1.1.iv
Do you comply with the requirement?	☒ Yes ☐ No
If not, how and why do you not comply? If yes, how do you know that you comply with the requirement?	
Lithos does not employ minors nor permit operations without adequate rest time pursuant to federal labor regulations. We work closely with agricultural partners and are fortunate to report we have not witnessed any labor violations (e.g., minors working at the farm), OSHA concerns, nor cases of undocumented workers. If we did encounter these scenarios, we would operate in strict accordance with federal laws.	
Identify any documents or other records that you rely upon to verify compliance.	
Click or tap here to enter text.	

Requirement: Ensuring a safe working environment and mitigating occupational health and safety hazards.	**Rule** 6.4.1.1.iv
Describe occupational health and safety hazards that you have identified.	

As discussed in the ERA, deploying basalt can result in particle exposure of respiratory silica and generic dust particles (PM10) and operation of heavy machinery presents pinch point safety hazards.
Describe the measures undertaken to mitigate the hazards.
Operators moving basalt material on-site at the quarry or spreading it on the fields are doing sousing equipment with enclosed cabs to protect them from pinch points and airborne dust particulates. To further mitigate this risk, however, the moisture content of the material is regulated and we supply N-95 masks for direct operators and agricultural laborers working within 100 m at any time on the days of deployment.

Requirement: Providing for equal opportunities in the context of gender; providing equal pay for equal work and protecting against and appropriately responding to violence against women and girls.	**Rule** 6.4.1.1.v
Do you comply with the requirement?	☒ Yes ☐ No
If not, how and why do you not comply? If yes, how do you know that you comply with the requirement?	
We operate in the USA and abide by all requirements of equal employment opportunity at both the local and federal levels, including but not limited to mandatory sexual harassment training and clear communication channels to human resources officers. No instances of gender disparity have been reported and Lithos strives to create an exceptional work environment of professional character, welcoming all people.	
Identify any documents or other records that you rely upon to verify compliance.	
Click or tap here to enter text.	

3 Environmental impact and management

Requirement: Pollution prevention, including pollutant emissions to air, water, and soil as well as noise and vibration, and generation of waste and release of hazardous materials, chemical pesticides, and fertilizers.	**Rule** 6.4.1.1.vi
Does the carbon removal activity result in the following impacts? For **each potential impact**, please provide detailed information about its extent and the current measures in place to mitigate these negative impacts.	
a. Pollutant discharges to air	
Dust pollution - we have previously addressed this above and in our ERA. Briefly, dust that exceeds OSHA thresholds is generated, but it disperses back to background levels by 100 m away from operations, functionally being contained to the farm. Our activities fall within standard agricultural use practices of liming as we are simply a substitute for this already established and managed process.	
b. Pollutant discharges to water	

We have similarly analyzed transport of contaminants of potential concern in our ERA and concluded that we do not contribute significant amounts of COPCs and do not pose a risk beyond baseline soil conditions.
c. Pollutant discharges to soil
In our ERA we conducted soil screening analyses for COPCs and conclude we do not exceed EPA thresholds. Rather, background soil conditions themselves often exceed the EPA guidelines and our activities often dilute these COPCs in fields.
d. Noise
Spreading basalt requires operation of standard farm equipment for an additional week in most cases. As these farms are self-contained, this is not substantial to impact communities.
e. Vibration
Spreading basalt requires operation of standard farm equipment for an additional week in most cases. As these farms are self-contained, this is not substantial to impact communities.
f. Waste
Operation and spreading of basalt may result in unused dust or excess material that cannot be spread. This material is collected and safely transported offsite and properly disposed of.
g. Release of hazardous materials
The only observed potential hazard of the basalt rock dust has to do with its particle size, and measures to mitigate any of these risks are detailed in sections throughout this document.
h. Chemical pesticides and fertilizers
Lithos basalt feedstock is routinely analyzed and does not contain chemical pesticides or fertilizers.

Requirement: Biodiversity conservation and sustainable management of natural resources, including avoiding or minimizing negative impacts on terrestrial and marine biodiversity and ecosystems; protecting the habitats of rare, threatened, and endangered species, including areas needed for habitat connectivity.	**Rule** 6.4.1.1.viii
Is the activity taking place in or near environmentally sensitive areas, including protected areas (e.g. nature reserve or national park), or other areas included in a conservation plan? Describe where the nearest such areas are.	
Lithos operates on historical farmland in NWisconsin and does not operate on land in or near environmentally sensitive areas. However, because of regular operation of the quarry and our activities, there are multiple state parks, nature preserves, and national parks within 250 miles of our activities.	
Describe impacts and risks that you have identified	
By our ERA, we did not conclude any credible threat to ecology, water quality, soil quality, groundwater quality, or air quality.	
Describe the measures undertaken to minimize and address the impacts and the risks.	

Click or tap here to enter text.

Requirement: Minimizing soil degradation and soil erosion.	**Rule** 6.4.1.1.viii
Describe impacts and risks to soil that you have identified.	
We do not believe any risk is created by our activities, which conversely enhances soil health and increases cation exchange capacity, which ultimately results in better retention of organic matter and overall health and integrity of soil.	
Describe the measures undertaken to minimize and address the impacts and the risks.	
Soil analysis is the primary quantification measure for Lithos in its ERW application technology. All soil samples that are collected are analyzed for standard agricultural soil health characteristics and also for their elemental composition. The results from these analyses, as well as crop/harvest yield data help Lithos and the growers to understand better the impacts and risks associated with applying basalt to the farmland.	

Requirement: Minimizing water consumption and stress.		**Rule** 6.4.1.1.viii
Are you located in an area impacted with water stress?	☐ Yes ☒ No	
If yes, describe local conditions in terms of water stress and any risk analysis done on the impacts of the CO_2 removal activity on water stress		
This facility was chosen for its abundant natural precipitation, a property that is enabling to ERW.		
Describe any agreements and/or regulations relating to water sourcing.		
Wisconsin requires agricultural operators withdrawing 1 million gallons or more per day of surface or groundwater are required to register their withdrawals. This is minimally relevant for our activities as we do not consume substantial water.		
Describe the measures undertaken to minimize water consumption.		
Wetting of the basalt rock dust on-site at the rock quarry is only done so with recycled water. The quarry has a large collection pond for collecting both rainwater but also for collecting water runoff from its plant operations, all of which is recycled within the plant itself. Other than that, water is only used to supply our operators with daily drinking water and whatever water may be incidentally needed in maintenance and operation of farm equipment (combine spreader) for a period of typically 1 week.		

Requirement: The CO_2 Removal Supplier shall not convert **natural forests or high conservation value habitats.**	**Rule** 6.4.1.1.viii
Do you comply with the requirement?	☒ Yes ☐ No
If not, how and why do you not comply? If yes, how do you know that you comply with the requirement?	
We operate only on longstanding historical agricultural lands that are already zoned and permitted as such. We do not impact forests.	
Identify any documents or other records that you rely upon to verify compliance.	
Click or tap here to enter text.	

4 Social impact and community relations

Requirement: Avoiding or minimizing adverse impacts **to community health and safety**.	**Rule** 6.4.1.1.vii
Describe potential sources of impact, taking into account all relevant factors in the given context. Consider both routine and non-routine circumstances.	
Lithos transparently reports its activities to farmers and all community members. We regularly engage the public and have helped bolster public support for ERW and many farmers welcome and embrace us, often seeking us out for collaboration.	
Describe the measures undertaken to minimize and address the impacts and the risks.	
We commit to transparency and public education of our activities and pose no risk.	

Requirement: Preserves and protects **cultural heritage** and cultural and religious sites.	**Rule** 6.4.1.1.ix
Describe the impacts and the risks to cultural heritage and cultural and religious sites that you have identified.	
We operate only on agricultural sites and therefore do not have the potential to impact religious and cultural sites. In the event such agricultural sites are found to no longer be appropriately designated, we will cease operations immediately.	
Describe the measures undertaken to minimize and address the impacts and the risks.	
Click or tap here to enter text.	

Requirement: Avoiding **forced physical** and/or **economic displacement**. If avoidance is not feasible, CO_2 Removal Suppliers shall minimize physical and/or economic displacement. This applies also to any access restrictions to lands, territories, or resources, and any customary rights of local right holders.	**Rule** 6.4.1.1.x
Did/does the activity result either in forced physical or economic displacement?	☐ Yes ☒ No
If yes, describe the impact to local communities and how it was assessed?	
Click or tap here to enter text.	
Provide a comprehensive description of the process that was undertaken, compensation arrangements and measures to mitigate the negative impacts.	
Click or tap here to enter text.	
Also describe in detail how you minimized forced physical or economic displacement.	
Click or tap here to enter text.	

Requirement: When the activity directly or indirectly impacts **indigenous peoples** or their livelihoods, ancestral knowledge or cultural heritage, the CO_2 Removal supplier shall develop the Production Facility with free, prior, informed consent (FPIC).	**Rule** 6.4.2
Is the CO_2 removal activity taking place in an area inhabited by or claimed by indigenous people, or does it influence such an area?	☐ Yes ☒ No
If yes: does the activity directly or indirectly impact indigenous peoples or their livelihoods, ancestral knowledge or cultural heritage? How was that determined?	
Click or tap here to enter text.	
If there is a direct or indirect impact:	
a. Provide a description of the impact and the measures that were taken to minimize the impact.	
Click or tap here to enter text.	
b. Describe how and when the indigenous communities were identified and approached for the FPIC process.	

Click or tap here to enter text.
c. Describe the mutually agreed process for the negotiations.
Click or tap here to enter text.
d. Describe how the indigenous communities were informed about the potential impacts of the activity on their livelihoods, ancestral knowledge, or cultural heritage.
Click or tap here to enter text.
e. Describe the outcome of the negotiations.
Click or tap here to enter text.
f. Describe how the ongoing consent process is managed to ensure that the indigenous communities continue to agree with the activity as it progresses.
Click or tap here to enter text.
g. Describe grievance mechanisms that are in place for the indigenous communities.
Click or tap here to enter text.
h. Describe how the impacts on the indigenous communities are monitored and addressed during the operation of the Production Facility.
Click or tap here to enter text.

5 Biomass sustainability

Puro methodologies require that whenever biomass feedstock is used in the carbon removal activity, it must be sourced in a sustainable manner.	
Is your carbon removal activity based on using biomass feedstock?	☐ Yes ☒ No

Describe how you ensure that it is sourced sustainably.
Click or tap here to enter text.

Note that additional evidence will be required to demonstrate adequate biomass sourcing as per the Puro Biomass Sourcing Criteria, where applicable.

puro · earth

Stakeholder Engagement Report

CO_2 Removal Supplier	Lithos Carbon
Production Facility	Lithos Carbon Midwest Facility
Production Facility ID	606367
Date of report last update (YYYY-MM-DD)	2025-11-04

Stakeholder Engagement Report

The purpose of this document is to gather results of the Stakeholder Engagement that has been conducted by the CO_2 Removal Supplier, for its Production Facility, in line with Section 6.4 of the Puro General Rules 4.0 and the Puro Stakeholder Engagement Requirements.

This report is divided in the following sections:

1 Identified stakeholders
2 Consultation activities and outcomes
3 Plans for continued consultation during crediting period
4 Summary

This report will be made **publicly available** in the Puro Registry. It shall not contain information about private individuals (e.g. name, personal address) for privacy reasons. Such information shall be provided separately (e.g. list of participants to consultation activity, as an appendix to the report).

1 Identified stakeholders

Provide an overview of the stakeholders that have been identified as relevant to include in the stakeholder engagement process, following the categories defined below:

Stakeholder categories	Identified stakeholders
Local Stakeholders, i.e. stakeholders in the immediate environment of the facility of the CO2 Removal Supplier, and most prone to experience direct or indirect effects of the respective carbon removal activity.	Lithos operations can be categorized into 3 basic steps, each step engages with a different set of stakeholders that are directly or indirectly impacted. Listed are primary local stakeholders 1. Feedstock procurement a. Local quarry or fines vendor 2. Feedstock logistics a. 3rd party logistics vendors b. Agricultural nutrient spreader service vendors c. Growers 3. Feedstock measurement, recording, verification a. Agronomists b. Soil sampling service providers
Stakeholders with **land-tenure rights** within the vicinity of the project boundary	Farm Producers
Representatives of relevant **local authorities** and relevant **local politicians**	Town of [redacted] outreach, USDA outreach
Local **non-governmental organizations** (NGOs) or international NGOs who are active in the region and relevant to the topic	Farmer Cooperatives ([redacted])
Representatives of relevant **working groups** or **vulnerable** and **marginalized** groups within the vicinity of the project boundary	Small and Historically Underserved farm producers

contact@puro.earth Puro.earth Oy, Tammasaarenkatu 1, 00180 Helsinki, Finland https://puro.earth

Relevant **industry experts**, given there are any in the near environment	Local university department for soil science ([redacted]) Local university agricultural-extension school ([redacted])
Other, please specify:	Nationwide / local grower association and councils
Answers are to be written in the second column without disclosing private information. For instance, instead of the name of a specific resident, use terminology like "local residents". Likewise, instead of naming specific public employees, prefer to mention the roles and departments. *In case there are no identified stakeholders in a given category, provide a brief justification instead.*	

Activity directly or indirectly impacting indigenous peoples or their livelihoods, ancestral knowledge or cultural heritage:

Question	Answer
Does the list of identified stakeholders include any indigenous peoples or communities?	☐ Yes ☒ No
If answer is "Yes" to the question above, has the free, prior and informed consent (FPIC) been obtained from those indigenous peoples or communities?	☐ Yes. Please provide evidence of the obtention of the FPIC in a separate document.
As per rule 2.1.6 in the Puro Stakeholder Engagement Requirements, note that "FPIC is distinct from stakeholder engagement in that it is derived from indigenous peoples' right to self-determination. While stakeholder engagement involves consultation and collaboration with all parties affected by a project, FPIC goes a step further by requiring the explicit consent of indigenous peoples before proceeding with activities that impact them."	

2 Consultation activities and outcomes

Provide an exhaustive list of all the **stakeholder consultation activities** that have been conducted. Add as many rows as necessary. The activity categories can for instance be one of the followings (but not limited to these ones): public meeting, online webinar, paper questionnaire, electronic questionnaire, interviews, focus group, site visit, door-to-door visits, etc.

Activity categories	Activity name	Activity date (YYYY-MM-DD)
Public Information Meeting	Growers Meet Lithos – Direct information sessions	2023-08-01
Public Meeting	Soil and Water Conservation District Meeting	2023-10-31
Public Meeting	Soil and Water Conservation District Meeting	2023-11-16
Public Meeting	Soil Analysis and Plant Testing Working Group Annual Meeting	2023-02-22
Public Meeting	State Chamber of Commerce	2023-10-03
Public Meeting	[redacted] Societies Meeting	2023-10-29
Public Meeting	Soil and Water Conservation District Meeting	2024-10-22
Door-to-Door Visits	Spring2023 Campaign – Direct information session	2023-03-01
Door-to-Door Visits	Harvest2024 Campaign - Direct information session	2023-09-01
Door-to-Door Visits	Spring2024 Campaign- Direct information session	2024-03-01
Door-to-Door Visits	Harvest2024 Campaign - Direct information session	2024-09-01
Public Meeting	Midwest Townhall	2025-03-11

Lab Visit (Local Research Partner)	[redacted] Lab Visit	2023-03-09
Site Visit (Local Research Partner)	[redacted] Site Visit	2022-11-10
Phone Call	Town of [redacted] - Lithos Overview	2024-05-30

Provide a list of all the **stakeholder invitations** that have been sent out, grouping whenever relevant the invitations (e.g., for all local residents as one row). Add as many rows as necessary. The invitation format can be one of the followings (but not limited to these ones): postal letters, email, social media publication, public board information, telephone calls, verbal communication, etc.

Invitation format	Invitation name	Invitation date (YYYY-MM-DD)
Social Media Publication	Harvest 2023 Direct Contact Campaign	2023-10-19
Social Media Publication	Spring2024 Direct Contact Campaign	2024-04-12
Social Media Publication	Summer2024 Direct Contact Campaign	2024-08-26
Social Media Publication	Harvest2024 Direct Contact Campaign	2024-09-17
Opt-in SMS / Phone call	Spring2024 Direct Contact Campaign	2024-04-12
Opt-in SMS / Phone call	Summer2024 Direct Contact Campaign	2024-08-26
Opt-in SMS / Phone call	Harvest2024 Direct Contact Campaign	2024-09-17
Email	USDA Outreach	2024-04-30
Email	Soil Sampling with [redacted]	2024-07-23
Opt-in SMS / Phone call	[redacted]	2022-12-08
Research Partnership	[redacted] Dedicated Resources	2023-03-07

As **supporting evidence** to this report, please provide in a separate subfolder, the following:

- Example of invitations sent out, for different consultation activities (e.g. letters, emails, website announcements).
- Lists of all stakeholders invited to the consultation activities and stakeholders participating in the consultation activities. The lists will not be made public, as they can contain private information.

In case identified relevant stakeholders (section 1) were not invited to the consultation activities, please provide clear **reasons for not inviting** them. Add as many row as necessary. Leave blank if not applicable.

Identified stakeholders	Reasons for not inviting
N/A	N/A
N/A	N/A

Provide an extensive summary of i) the **information that was provided to stakeholders** during the consultation activities, ii) the **feedback received** during the consultation activities (with a particular focus on concerns, potential issues and critiques), and iii) the **responses provided to stakeholders** about their feedback.

Summary of the feedback received during the consultation activities
Information provided to stakeholders: - Who is Lithos Carbon, what Lithos Carbon offers as a service - Co-benefits of Lithos basalt soil amendment

contact@puro.earth Puro.earth Oy, Tammasaarenkatu 1, 00180 Helsinki, Finland https://puro.earth

- Application considerations concerns
- Composition of the basalt soil amendment, effects, and other considerations

Feedback received from stakeholders:
- Safety and material handling
- Logistics onsite

Responses provided to stakeholders:
- FAQ
- 1-on-1 consultation, site consultation

In case any relevant stakeholders **could not take part** in the consultation activities due to reasons such as lack of mobile access or physical disability, please describe and summarize how you engaged with them, what their specific feedback was, and how it was answered. Leave blank if not applicable.

Consultation of stakeholders that could not take part in the scheduled consultation activities

N/A

As **supporting evidence** to this report, please provide in a separate subfolder, the following:
- Materials presented during the consultation activities (e.g. presentations)
- Documentation of the feedback received (e.g. meeting notes, questionnaire answers)
- Documentation of the responses provided to stakeholders (e.g. consultation reports)

Provide an extensive description of the **changes made to the project** plans to address the concerns and issues raised during the consultation activities.

Description of the changes made to the project for addressing concerns and issues

1. Logistics and deployment
    a. Good stewardship through our 3rd party vendors. To guide and help our 3rd party logistic providers, Lithos has made changes in our implementation practices to be good stewards for producers. A practical example of this is Lithos pro-actively arrives on site before feedstock drop-off.
2. Soil sampling redundancy
    a. As a part of our MRV program, continued soil sampling can be intrusive to producer operations. Lithos has adapted the implementation of MRV to meet farm producers where they are.
3. Soil compaction mitigation
    a. Addressed concerns of soil compaction for certain soil types. Lithos has created a specific application prescription and logistics arrangement to address. A specific example is sourcing spreaders for a certain type of spreading equipment.

3 Plans for continued consultation during crediting period

Provide a description of the current plans for maintaining a continued engagement of the stakeholders during the crediting period.

Description of the plans for continued consultation of stakeholders during the crediting period

1. Regular scheduled follow-up contact calls/on-site visits with growers
    - Feedback mechanism for compliance performance, environmental concerns, and social benefit indicators
    - Lithos maintains an open-door policy with each of the growers. Growers are assigned an account manager to maintain knowledge sharing, impact monitoring, and address any emerging issues.
2. Comprehensive treatment database
    - Dependent on grower agreement, data-sharing access of soil sampling results
3. Post-application grower surveys / feedback forms
    - Increasing Lithos feedback quantity and quality
    - Maintenance of stakeholder relationship
    - Impact monitoring

4 Summary

Based on all the information provided above and the evidence provided separately, write an overall summary of the stakeholder engagement. This summary must follow the structure of this report, tackling identified stakeholders, consultation activities and outcome, and plans for continued consultation. This summary is limited to 500 words. This summary must be re-used in the Project Description.

Overall summary (500-word limit)

Lithos completed a stakeholder engagement report that adheres to Puro General Rules 4.0 and Puro Stakeholder Engagement Requirements, information was provided without private individual information.

Identified Stakeholders:
Lithos Carbon identifies stakeholders across three operational steps: feedstock procurement (local quarry/fines vendors), feedstock logistics (3rd party logistics, agricultural nutrient spreader services, growers), and feedstock MRV (agronomists, soil sampling service providers). Other identified stakeholders include farm producers with land-tenure rights, local state conservation district authority, farmer cooperatives, small and historically underserved farm producers, local university soil science and agricultural-extension schools, and nationwide/local grower associations.

Consultation Activities and Outcomes:
Lithos Carbon conducted various consultation activities from February 2023 to September 2024, including "Growers Meet Lithos" direct information sessions, multiple Soil and Water Conservation District Meetings, a Farm Foundation Round Table, a Soil Analysis and Plant Testing Working Group Annual Meeting, a State Chamber of Commerce meeting, and an [redacted]Tri Societies Meeting. Lithos also conducted several "Direct information sessions" through door-to-door visits between 2023 and 2024. Invitations were sent out via social media publications and opt-in SMS/phone calls for various direct contact campaigns.

Information provided to stakeholders included details about Lithos Carbon, co-benefits of basalt soil amendment, application considerations, and basalt composition/effects. Feedback primarily focused on safety, material handling, and on-site logistics. Lithos responded with FAQs, 1-on-1 consultations, and

site consultations. To address feedback, Lithos has already made operational changes such as: implementing good stewardship practices with 3rd party logistics vendors (e.g., pro-actively scouting sites before feedstock drop-off), and developing specific application prescriptions and logistics to mitigate soil compaction.

Plans for Continued Consultation:
Lithos Carbon plans ongoing engagement through regular scheduled follow-up calls and on-site visits with growers. This includes feedback mechanisms for compliance, environmental concerns, and social benefits, and an open-door policy with assigned account managers for knowledge sharing and issue resolution. Lithos also maintains a comprehensive treatment database with grower-dependent data-sharing access for soil sampling results, and conduct post-application grower surveys/feedback forms to increase feedback quality, maintain relationships, and monitor impact.