November 2025

Puro.Earth Production Facility Validation and Output Verification

Lithos Carbon Mid-Atlantic Facility

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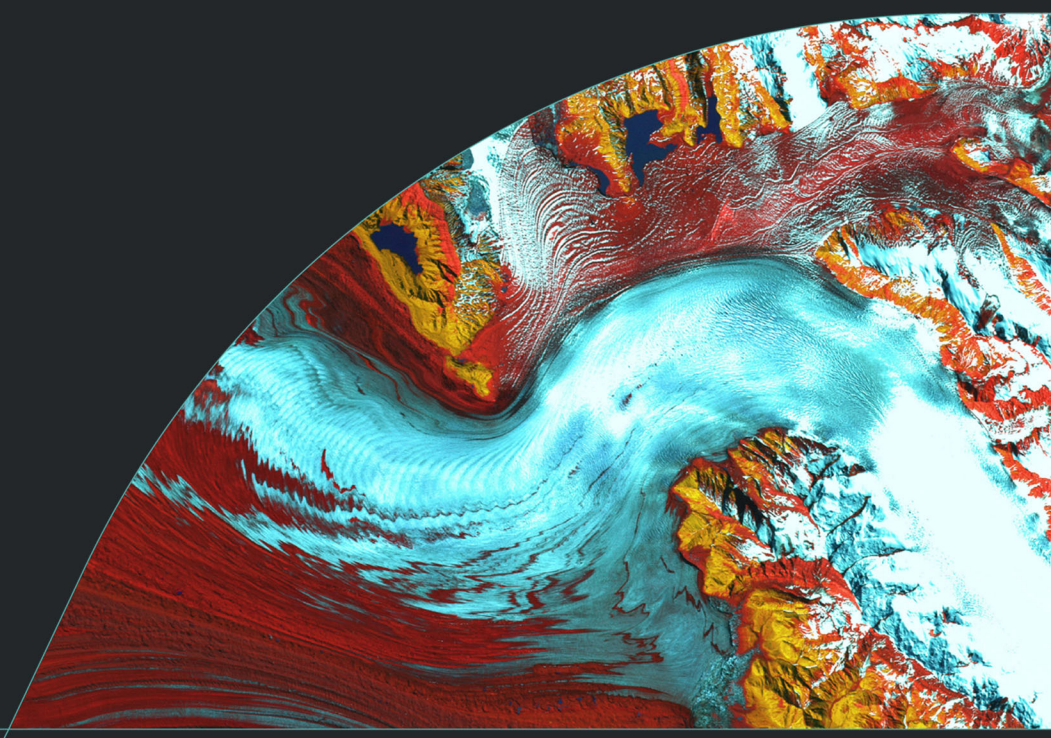

Validation and Verification Summary

EcoEngineers has been contracted by Puro.Earth on behalf of Lithos Carbon (Lithos), to conduct a validation and verification of the Lithos Mid-Atlantic Facility against the requirements specified in the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2 (methodology).

EcoEngineers conducted a combined validation and verification to determine whether the life-cycle analysis (LCA) model, sampling procedures, and practices for the reporting period (as further described in section 1) are free of non-conformances and material misstatements. Upon review of the submission materials, EcoEngineers conducted a risk assessment to determine the sampling and audit methodology. The EcoEngineers team reviewed the supporting documentation according to the validation and verification sampling plans.

Table 1: Summary of Lithos Mid-Atlantic Facility

Project Name	Lithos Mid-Atlantic Facility
Production Facility ID	782763
Monitoring Period	May 25, 2023 to April 29, 2025
Crediting Period	May 25, 2023 to May 24, 2028

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Section 1: Introduction

EcoEngineers was contracted by Puro.earth to conduct an independent, third-party combined production facility audit and output audit of the project detailed in Section 1.1.1 and 1.1.2 of this report. EcoEngineers is independent of Lithos Carbon, completed a conflict-of-interest check, and declares there is no conflict of interest with the contracted combined validation and verification of the project.

EcoEngineers is an independent, accredited, third-party Validation and Verification Body (VVB) for the Puro.earth Registry. For more information visit https://puro.earth/partners.

Table 2: Validation/Verification Body Auditor Information

Validation/Verification Body (VVB)	EcoEngineers
VVB Contact Information	1300 Walnut Street, Suite 100 Des Moines, Iowa, 50309 1-515-985-1260 clientservices@ecoengineers.us
ANAB Accreditation ID	9159
Lead Validator / Lead Verifier	Zoe Nong
Site Visit Auditor	Aimsley Kadlec
Validator / Verifier	Valerie Chan
Independent Reviewer	Jocelyn Stubenthal
Subject Matter Expert / GHG Verification Director	Andrea Adams

Competence of the validation and verification team is demonstrated through the certificates in Appendix E.

1.1: Project Background, Scope, and Boundaries

1.1.1: Project Background

Lithos Carbon, hereinafter referred to as “Lithos”, aims to accelerate Earth’s natural carbon cycle by permanently removing carbon dioxide (CO_2) from the atmosphere while simultaneously improving crop yields and soil health for farmers. The Lithos team utilizes enhanced rock weathering (ERW) by deploying organic-grade basalt dust onto agricultural farmland. ERW is the process of dissolving silicate rocks by means of a natural chemical weathering reaction when exposed to acidic rain. This chemical weathering reaction occurs instantaneously as the CO_2 from the rainwater converts to stable bicarbonate. Lithos accelerates the chemical weathering process by applying fine basalt rock dust onto farmland with high porewater CO_2 concentrations. The dissolved bicarbonate formed through chemical weathering is transferred downstream by rivers and streams to the coastal ocean, where it remains for thousands of years. On the geologic time

scale, the bicarbonate biomineralizes into calcium carbonate and eventually sinks to the ocean floor, where it becomes solid limestone.

Per the Lithos Puro Project Description:

> *Lithos is an enhanced rock weathering company that continually deploys superfine basalt silicate waste feedstock. The feedstock is procured 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 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.*

1.1.2: Project Location

Lithos deployed waste basalt rock fines from [redacted] and the co-located [redacted] quarry in [redacted], Pennyslvania. [redacted]. The basalt fines were loaded at the quarry by facility personnel, transported via contracted third-party hauling companies, and unloaded at various farm deployment sites in the surrounding Maryland and Pennsylvania areas.

Table 3: Project Location Details

CO_2 Removal Supplier	Lithos Carbon
CO_2 Removal Supplier Address	1111B S. Governors Ave, #6084 Dover, Delaware 19904
Quarry Name	[redacted] Facility
Quarry Address	[redacted], Pennyslvania, [redacted]
Production Facility Name	Lithos Mid-Atlantic Facility
Production Facility ID	782763
Monitoring Period	May 25, 2023 to April 29, 2025
Crediting Period	May 25, 2023 to May 24, 2028
Production Facility Location(s)	143 plots for 21 Growers in Pennsylvania and Maryland. See Appendix G for more information.

1.2: Audit Boundary Scope

1.2.1: Baseline Scenario

According to the Lithos Puro Project Description:

> *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.

1.2.2: Boundaries

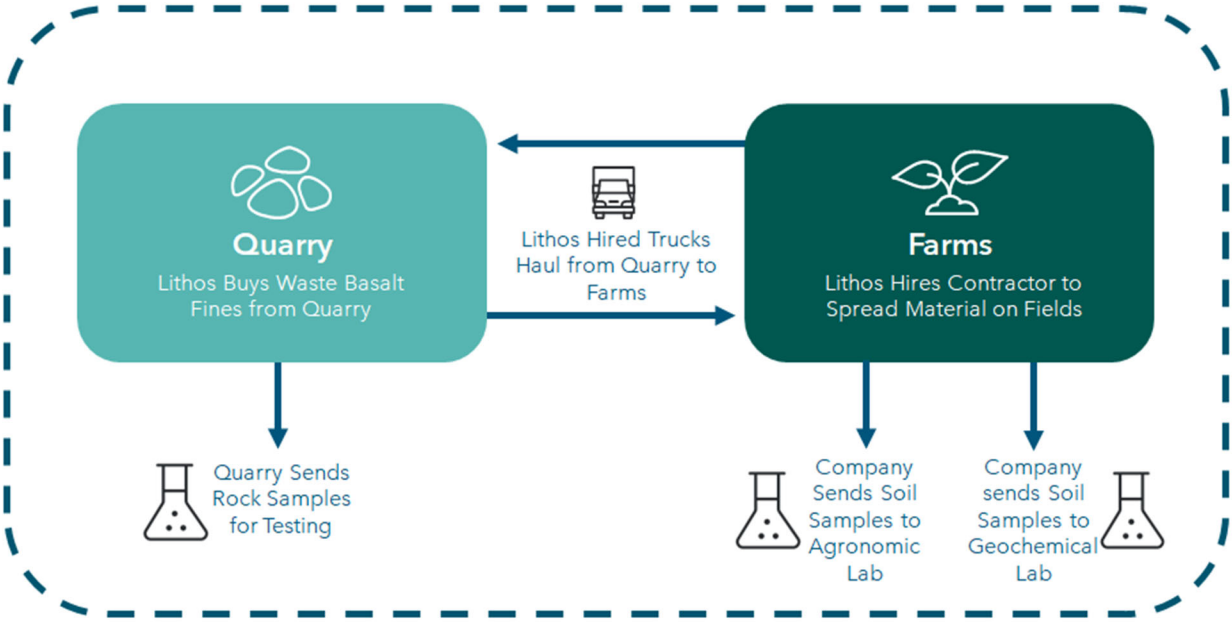
The Lithos Mid-Atlantic project consists of a cradle-to-grave system boundary. The four stages included in the boundary are described below:

1. Feedstock sourcing: Waste material (a byproduct of the quarry's grinding and milling processes) is purchased from [redacted] Facility.
2. Transport: Transportation of rock fines from the quarry to the application site.
3. Application: Applying rock fines to the fields.
4. Weathering: Monitoring and sampling soils.

According to the Lithos Puro Project Description:

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 [redacted] quarry waste feedstock as-is. This feedstock is applied onto surrounding geographical soils. The defined climatic area for the Pennsylvania/Maryland deployment area is humid subtropical. The environmental risk assessment provides identified risks and their mitigation plan.

Figure 1: Lithos LCA Boundary



- *EcoEngineers*

1.2.3: CO_2 Removal Certificates (CORCs)

CO_2 Removal Certificates are defined in the Puro.Earth ERW Methodology as net 1 tCO_2e removed the atmosphere and as stated in section 6.1 by the following:

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

C_{stored}: Gross amount of CO_2 stored via weathering of the applied rock. (Tonnes of CO_2)

$E_{project}$: Total life cycle emissions arising from the whole supply chain of the ERW activity. (Tonnes of CO_2e)

$E_{leakage}$: Total GHG emissions due to negative economic leakage. (Tonnes of CO_2e)

E_{loss}: Total re-emissions from initially sequestered CO_2. (Tonnes of CO_2e)

1.2.4: Reporting Period

The commitment date for the Lithos ERW is May 25, 2023, based on the date the first physical actions were taken to implement the mitigation activity, per the commitment date definition in the Puro Standard General Rules, version 4.2. and the Puro Standard General Rules, version 4.2.

The reporting period of the feedstock application activities occurred from May 25, 2023 through April 29, 2025.

Section 2: Audit Methodology

2.1: Validation and Verification Criteria

EcoEngineers' validation and verification was conducted in accordance with the following standards, rules, requirements, and documents:

- Puro.earth Enhanced Rock Weathering Methodology 2022 v.2 (Methodology)
- Puro.earth Standard General Rules. Version 4.2, approved June 30, 2025 (Rules)
- Puro.earth Clarifications for Application of Puro Standard and Methodologies, last updated October 6, 2025 (Clarifications)
- Puro.earth Additionality Assessment Requirements, Version 2.0, June 7, 2024 (Additionality Requirements)
- Puro.earth Validation & Verification Requirements, Version 1.2, July 2025 (V/V Requirements)
- Puro.earth Stakeholder Engagement Requirements, Version 1.1, May 13, 2024 (Stakeholder Requirements)
- Puro.earth Puro Standard Article 6 Procedures, Version 1.2, May 10, 2024
- Puro.earth SDG Assessment Requirements, Version 1.0 (SDG Requirements)
- IAF MD 4:2025 IAF Mandatory Document for the Use of Information and Communication Technology (ICT) for Conformity Assessment Purposes, January 30, 2025
- ISO Standard 14064-3:2019 – Specification with guidance for the verification and validation of greenhouse gas statements
- Global Reporting Initiative (GRI) Universal Standards 3: Material Topics, 2021

2.2: Materiality Threshold

The intended user has not set a materiality threshold for verification, thus EcoEngineers established the quantitative materiality threshold for material misstatement to be ±5% of the reported tons of CO_2 removed. EcoEngineers determines performance materiality considering the quantitative materiality threshold.

2.3: Audit Objectives

The objective of the validation is to assess the likelihood that implementation of the project activities described in the Project Description and Monitoring Plan will result in the achievement of GHG outcomes as stated by Lithos Carbon, and whether the documents conform to the requirements established by the methodology and applicable criteria.

The objective of the verification is to determine conformance of the CO_2 Removal Certificate (CORC) Output Report to the applicable monitoring and reporting requirements established by the methodology, ISO Standards, and applicable criteria, and determine whether the emissions reductions claimed are within scope, real, quantifiable, additional, verifiable, counted once, and under clear ownership.

2.4: Level of Assurance

EcoEngineers designed and conducted verification services to provide a reasonable, but not absolute, level of assurance that the GHG assertion allocated to Puro.earth by projects under the

program for the Mid-Atlantic Facility is materially in conformance with the validation objectives and the validation criteria.

2.5: Validation and Verification Plan

The validation and verification plan is included in Appendix A.

2.6: Strategic Analysis and Risk Assessment

2.6.1: Summary of Risks

EcoEngineers performed a strategic analysis and a risk assessment and sampling plan (RASP), which evaluates the data's relative contribution to a material misstatement, uncertainty in calculations, and potential for incomplete reporting, as well as assessing the effectiveness of the current reporting strategy and identify strengths and weaknesses within the data. The resulting information was used to determine assertion attributes. Then inherent risk, probability and magnitude of potential risks within the data, control risks, and design and effectiveness of controls were reviewed and evaluated to determine risk assessment considerations and procedures for sampling data.

2.7: Evidence Gathering Plan

Based on the outcome of the Risk Assessment EcoEngineers requested supporting documentation for the claims made in the GHG Assertion and to receive additional information on Lithos' practices.

Section 3: Audit Process

3.1: Site Visits

3.1.1: Requirements

A site visit was completed to verify the operations taking place at the project site(s). Project personnel made available all records, permits, policies, procedures, and protocols, and provided access to appropriate areas of each site. EcoEngineers staff completed all required activities based on the sampling and validation plan for the project and their professional judgment, including, but not limited to:

- Reviewed supporting evidence on-site
- Interviewed key personnel related to preparing and collecting data
- Reviewed the data management system
- Directly observed the production equipment, confirmed the process diagram accuracy, and accounting systems associated with high risk
- Assessed measurement device accuracy and reviewed financial transactions as necessary

EcoEngineers sampled two growers for interview and two backup growers for non-response situations. EcoEngineers interviewed Lithos and the Mid-Atlantic quarry, [redacted] Mill.

During the site visit, it was confirmed that:

- The [redacted] Mill:
    - Was operational at the time of the site visit and the quarry produced ERW feedstock (Basalt waste fines)
    - The ERW feedstock is a waste product of the quarry
    - Truck scales are present to measure quantity of feedstock sold to Lithos
- Farmer Interviews:
    - Feedstock spreading rate was 15 to 20 tons per acre
    - Soil tests are completed by the farmer and independent third parties
    - Lithos has continuous monitoring of soil quality and of breakdown of ERW material
    - Control and treatment plots were used
    - Lithos only applies feedstock to fields that are suitable

3.2: Desk Audit

3.2.1: Requirements

EcoEngineers, the third-party Validation and Verification Body (VVB), used professional judgment in establishing the extent of data checks for each data type, as indicated in the sampling plan, which were needed for the team to conclude with reasonable assurance whether the data type specified for the application or report is free of material misstatement. At a minimum, the data checks selected by the VVB included the following:

- Tracing data in the LCA and CORC Summary Report to its origin;
- Reviewing the procedure for data compilation and collection;
- Reviewing and confirming the theoretical simulation approach against current and cited literature;
- Recalculating intermediate and final data to check original calculations;
- Reviewing calculation methodologies used by the entity required to contract for verification services ;
- Reviewing meter and analytical instrumentation measurement accuracy and calibration for consistency with the requirements;
- Observation of data management practices during the site visit and interviewing key personnel.

Section 4: Validation Findings

4.1: Project Details

Table 4: Puro.earth Validation Requirements and Findings

Requirement *Puro.earth document & (section) references*	Evidence gathering activities, evidence checked and assessment conclusion
Project Description contents *Rules (2.3.4.2(i) to (xi))*	EcoEngineers reviewed and cross-referenced the Project Description against the applied Methodology (Puro.earth Enhanced Rock Weathering Methodology 2022v.2) and observed the following: The Lithos Production Facility Project Description was consistent with the Puro Platform Agreement definition of production facility, and was in accordance with the Project Description template instructions to specify the registered Production Facility information. EcoEngineers noted that the production facility definitions in the Platform Agreement and the ERW Methodology are inconsistent. During a call on November 18, 2025, Puro clarified to Lithos and EcoEngineers that provision of geographic details of the application site boundaries is sufficient detail for the production facility. EcoEngineers determined that the final Project Description did contain the information listed in Section 2.2.4.2 of the Puro Rules. EcoEngineers verified that the final Project Description contains the information listed in Section 2.2.4.2 of the Puro Rules.
Baseline Scenario	In Section 4.2 of the Project Description, Lithos describes the project specific baseline scenario in relation to the operations at the quarry, per the registered Production Facility information. The text additionally states that Lithos actively determines and documents the applicable baseline scenarios for the landowners/land-users (i.e., growers). Lithos also details counterfactual / baseline scenarios for the aggregate facility (i.e., quarry) operations. Based on EcoEngineers' understanding of the Production Facility definition from the Methodology, this detail of the baseline scenario for the aggregate facility (quarry) is not necessary; the baseline scenario should apply to the application sites (farms) per Methodology Section 7.4.5.
Commitment Date *Rules (Definitions)*	The commitment date for the Lithos Mid-Atlantic Facility is May 25, 2023, as specified in Section A5 of the Puro Additionality v1.9 v3 project document. EcoEngineers verified that this date marks the initiation of physical actions to implement the mitigation activity. Supporting documentation includes: • Hauling invoices: Dated May 25, 2023, confirming material departure from the quarry.

CO_2 Removal Supplier attestation of the accuracy of information ***Rules (2.2.4.3)***	EcoEngineers reviewed the Authorization of Representation supporting document and determined that the contents of the file met the information accuracy attestation requirements.

Eligibility
Methodology (3.1)
	EcoEngineers reviewed the Project Description and supporting documentation, completed site visits, interviewed project stakeholders, and referenced Section 3.1 of the Methodology to determine if the Project met the eligibility requirements.
	
	As required by Section 3.1.4 of the Methodology, EcoEngineers obtained the standing data of the CO_2 Removal Supplier and Production Facility including:
	
	• Official document stating that the CO_2 Removal Supplier's organization legitimately exists
	  ○ "Division of Corporations – Filing.pdf" documents a Delaware.gov Division of Corporations – Filing result for Lithos Carbon, Inc., incorporated on March 16, 2022.
	• CO_2 Removal Supplier registration of the Production Facility in the Puro Registry
	  ○ Puro.earth provided EcoEngineers with the Puro.earth Facility Registration Summary, file name "Facility Registration Document_Lithos Mid-Atlantic Facility.pdf", registration date: November 12, 2025.
	• Locations of the application sites forming the Production Facility
	  ○ "Lithos_Application_sites.xlsx", listing 6 application sites in Pennsylvania, USA and 15 sites in Maryland, USA.
	• Whether the Production Facility has benefitted from public support
	  ○ Lithos answered "no subsidies" in response to the Section A7 question in the "Puro Addtionality v1.9 v3.docx".
	• Date on which the Production Facility becomes eligible to issue CORCs. See the Verification Opinion Statement in Appendix F for more information.
	  ○ In accordance with Section 3.1.3 of the Methodology, this is the date that the third-party production facility audit is completed, which is November 24, 2025.
	
	EcoEngineers confirmed that the project activity involves the application of basalt weathering material to soil at application sites, and was not applied to bodies of water, e.g., shorelines, beaches, etc.

	EcoEngineers reviewed documents including, but not limited to third-party laboratory analytical reports. EcoEngineers confirmed that there were 15 application sites of consistent geographic location, climatic conditions, type of applied feedstock, soil type and risk profile related to potentially toxic elements.
Additionality ***Methodology (3.2)*** ***Puro Additionality Assessment Requirements***	EcoEngineers reviewed and cross-checked the Project Description and the Additionality Document against the requirements of the Puro.earth Additionality Assessment Requirements, Version 2.0, June 7, 2024 (Additionality Requirements), and Methodology. The verifiers independently checked the Maryland Department of Environment (MDE), Maryland Department of Agriculture (MDA), Pennsylvania Department of Environmental Protection and Pennsylvania Department of Agriculture websites and confirmed the project is not required by current laws or regulations. EcoEngineers reviewed and confirmed that Lithos reported and addressed the carbon additionality to the baseline requirements from Section 2.3 of the Additionality Requirements. Lithos performed simple cost analysis, provided project financials and counter-factual analysis that were based on conservative, project-specific baselines, and demonstrated the project would not occur without carbon finance. Lithos was not required to conduct common practice analysis, since the enhanced weathering methodology has not reached a technology readiness level of 8 or 9, according to Table 1 in the Additionality Requirements. In summary, Lithos demonstrated project additionality and met the requirements in Section 3.2 of the Methodology, and the Additionality Requirements.
Prevention of Double-counting & Participation under other GHG programs ***Methodology (3.3)*** ***Rules (3.5)***	Lithos provided a signed Declaration of Representation and Non-Double Claiming, dated November 4, 2024 (“Authorisation of representation ERW.docx”). Lithos Carbon attested that the carbon removal certificates are solely registered in the Puro Registry for the Lithos Mid-Atlantic Facility, as required by Section 3.3.1 of the Methodology. EcoEngineers reviewed and confirmed that there is no overlap/duplication of the projects and/or application sites (farms) involved in the Lithos projects for the Puro and Isometric registries, in compliance with Clarification Number 019 GR4 regarding Section 3.5.3.1 in the Rules. EcoEngineers checked the Carbon Standard International Global C-Sink Registry and did not find any projects located in the United States. EcoEngineers confirmed there is no double-counting of CO_2 removals from the Lithos Mid-Atlantic Facility that is registered with Puro.earth. Lithos provided an agreement between Lithos, [redacted], and [redacted] Mill, effective March 21, 2023, that prevents the weathering

	material supplier from making carbon claims. EcoEngineers confirmed this document satisfies the requirements of Section 3.3.2 of the Methodology. Lithos provided the 21 Grower Agreements that related to the Fall 2024 application of basalt. Lithos provided 18 addenda that modified the Grower Agreements to prevent the landowner/land-user from rights, title and claims to the carbon removal credits. EcoEngineers understands that Puro agreed that Lithos meets the requirements of Section 3.3.3 of the Methodology with written credit ownership documentation for 85% of the application sites. EcoEngineers reviewed and confirmed that >85% of the Mid-Atlantic growers signed the agreement addendum regarding credit ownership rights. Based on EcoEngineers' review, Lithos has met the Methodology Section 3.3 requirements for prevention of double-counting.
Social ***Methodology (4.3)***	EcoEngineers completed a site visit to two application sites, interviewed the landowners, and reviewed the Stakeholder Consultation evidence. EcoEngineers confirmed that the following social safeguard requirements in Methodology Section 4.3 were addressed: 1) Engagement with local communities has occurred in a transparent manner. 2) Project activities do not occur on culturally sensitive land, and do not cause community displacement. 3) Lithos provided documented information on the effects and concentrations of composition and concentration of trace elements in the basalt weathering material 4) Lithos informed stakeholders of the acceptability limits for contaminants and/or communicated potential health risks and limits for toxic contaminants, in accordance with the requirement of Methodology Section 4.3.4 in the file "Basalt Information Material.pdf" 5) Presentation materials document the information Lithos provided to local stakeholders, and consent from affected stakeholders (i.e., landowners and/or land-users) is documented in agreements and associated addenda/acknowledgements. Separate documents detail the procedures for continued dialogue after the weathering material is applied to the soil, and the policy and procedures in place to address potential grievances, i.e., "Lithos Feedback Mechanism Summary.docx", "Lithos Grievances Procedure.docx". 6) Measures taken for occupational health and safety hazards are documented in "Evidence of safe working environment.docx".
Stakeholder Consultation ***Stakeholder Engagement Requirements***	Lithos provided evidence that stakeholder engagement was conducted for the project activities. Stakeholder engagement began in August 2023, before the Production Facility Registration, to October 2025 inclusive, before beginning the Production Facility Audit, which complies with the Stakeholder Requirements Sections 2.1.2, 2.2.1, and 2.2.2. Stakeholders

	are given the opportunity to submit continuous feedback via Lithos' website or by phone, in accordance with Stakeholder Requirements Section 2.1.4. Based on EcoEngineers' review, the Stakeholder Engagement Requirements were met, with the following exceptions: • Stakeholder Requirements Section 2.3.4: Invitations did not include a mailing address for the CO_2 Removal Supplier • Stakeholder Requirements Section 2.5.2: Feedback mechanisms did not allow for anonymous feedback
Monitoring Plan	EcoEngineers confirmed that the following monitoring requirements in Methodology Section 7 were addressed: 1) Soil samples were taken from within the top [redacted] of soil in homogenous plots of similar soil, topography, vegetation, and history. 2) Measurements of the concentration of major cations were tested by a third-party accredited laboratory using ICP-MS/OES. 3) Soil bulk density, soil texture, and soil organic carbon (though proxy measurements) is monitored. 4) The monitoring plan covers crop yields, climatic monitoring, control sites, and geochemical assay of the feedstock; including expected or normal values and uncertainty. 5) Control site measurement includes major cations, pH, CEC, soil organic carbon (through proxy measurements), and potentially toxic elements. 6) Sampling meets a density of one sample per hectare.

4.1.1: Environmental Risk Assessment

EcoEngineers received guidance from the Puro.earth team to deviate from Section 4.5.10 of the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2. In that regard, EcoEngineers has reviewed the Environmental Risk Assessment and confirmed hazard characterization, exposure characterization, risk characterization, and risk mitigation measures were outlined in accordance with the EPA Regional Screening Levels (RSL), Maryland Department of Environment, and the Pennsylvania Code n.d. Chapter 250.

Lithos outlined Constituents of Potential Concern (COPCs) at regional screening levels (RSL); associated generic human and ecological receptors; potential routes of exposure; concentration of COPCs in the ERW Basalt Material, background (baseline and post application) soil, surface water, and groundwater; and risk mitigation measures.

Soil was sampled from the top [redacted]. The risk assessment estimates that basalt makes up 2.7% of the field's mass in this layer and assumes a 5–20% runoff range based on the EPA Pesticides Water Model.

EcoEngineers reviewed the mitigation methods for respiratory risk from crystalline silica or other mineral dust and confirmed it complied with OSHA standards. Mitigation methods confirmed on site.

In table 5 and 6 below, each risk characterization is outlined for human and ecological receptors.

Table 5: Human Risk Characterization

Screening Analysis	COPCs	Potential Risks
Residential Soil Screening Analyses	Lanthanum and zirconium	Exceeds the RSL
Industrial Soil Screening Analyses	Arsenic, lanthanum, and zirconium	Non-cancer hazard
Residential Watershed	Aluminum, antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, fluoride, iron, lanthanum, lead, lithium, manganese, mercury, nickel, thallium, uranium, vanadium, and zirconium.	Non-cancer hazard
Groundwater	aluminum, antimony, arsenic, barium, cobalt, iron, manganese, and zirconium	Exceeds the RSL

Table 6: Ecological Risk Characterization

	COPCs	Potential Risks
Soil Screening Analysis	Antimony, Barium, Boron, Chromium(III), Flouride, Lead, Lithium, Manganese, Mercury, Thallium, Vanadium, and Zinc	Exceeds the RSL for Plants, Soil invertebrates, Mammals, and Birds
Water Quality Analysis	Aluminum, barium, chromium(III), cobalt, copper, lead, manganese, mercury, vanadium, zinc, and zirconium	Potential acute hazards
	The above listed elements and iron, nickel, and uranium	Potential chronic risks

The COPCs identified as potential risks were further analyzed and conclude with general safety by the following manners:

- confirmed zirconium presence exists in the highly stable, insoluble, weakly bioavailable zirconium silicate form;
- confirmed arsenic is below the threshold of five (5) ppm;

- confirmed cobalt increase to soil is marginal and in the presence of iron and aluminum oxides, increase cation exchange capacity thus decreasing leaching;
- confirmed thallium and selenium are not detected in the basalt or measured soils;
- confirmed barium, beryllium, cadmium, fluoride, antimony, lanthanum, tungsten, vanadium, and uranium concentrations are less than the background soil pre-amendment;
- confirming manganese, iron, aluminum, copper, lithium, vanadium, and nickel is present in the more inert, less toxic, and less bioavailable oxide forms;

EcoEngineers has determined that human and ecological receptors face minimal or no risk, with no significant increase above baseline levels, and overall, they affirm general safety. EcoEngineers also agrees that Lithos' ERW activity "*does not create risk to soils or water*… [and in some cases] *does not enhance a present-risk due to greater concentrations of a COPC in natural soils*."

4.1.2: Assessment of the Enhanced Rock Weathering model

EcoEngineers reviewed the Lithos model simulation using guidelines from the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2, and references from published scientific literature (Appendix D).

The Lithos model simulation estimates the basalt weathering fraction and associated carbon dioxide removal by a temperature-dependent dissolution rate term of the Arrhenius equation, a baseline kinetic constant converted to discrete geochemical units using specific surface area, and molar mass (Navarre-Sitchler, A., Brantley, S. 2007). A weathering maximum of 90% was used to approximate interstitial clay-bound cations, allowing for a conservative 10% reduction. The model indicates Magnesium, Calcium, and Sodium as the dominant cations released from the basalt feedstock, and thus the weathered fraction. Rainfall is also factored in on a climate-based precipitation rate.

The model simulation utilizes an uncertainty sensitivity analysis of 20% to each key parameter: temperature, rainfall, and specific surface area. The model description compares two recent ERW-based studies (Kantola et al., 2023 and Beerling et al., 2024) that utilize similar framework. Lithos' model is consistent with literature reported values.

The model is in the form of a Python code, which computes total change in cations from the post-spread baseline (BLP) and sampling round one (1, R1) by inputting geochemical batch data, acre information per each deal ID (specific plot), and agricultural correction factors to the Python code. The code converts oxides to elemental concentration, applies pre-processing and agronomic corrections, performs 10,000 resampling iterations to estimate stable median concentrations, scales all treatment-phase cation medians using chromium as the immobile tracer, and computes the change in cations from R1 to the BLP in mean equivalents.

It should be noted that when using waste fines and quantifying carbon sequestration on a post spread basis, the need for counterfactual calculation is theoretically eliminated. Lithos provided further supporting documentation and EcoEngineers verified that the alternative fate scenario of the basalt fines stored in waste piles does not result in counterfactual weathering. The precipitation duration required to infiltrate the pile and reach exfiltration before dissolved CO_2 is consumed, which is not replenished further as there is no biological respiration, is statistically improbable.

As outlined in Section 8.2.1(a-c), the model was provided with site-specific data, including information on basalt application, results from soil geochemical and agronomic laboratory tests, and climate conditions.

EcoEngineers noted the model simulation does not include possible secondary effects on dissolution of grains such as fluid supersaturation, clay formation and surface passivation effects; weather rates being affected by pH; and a respect-to-expected-performance in the field as noted in section 8.1 of the Enhanced Rock Weathering Methodology. See the Validation Verification Statement of this report and Appendix F for more information.

Section 5: Verification Findings

5.1: Assessment of life cycle greenhouse gas emissions

EcoEngineers reviewed the inputs to the Lithos LCA model using guidelines from the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2, and references from published scientific literature. Each CI reference and emission factor was comprehensively reviewed and are supported by the current scientific consensus. EcoEngineers noted eight discrepancies related to the CI references that were resolved during the audit.

The Lithos LCA covers emissions associated with sourcing the weathering material, transporting the weathering material, applying the weathering material to the soil, and monitoring operations during the weathering phase. Lithos claims zero emissions from processing the weathering material as the basalt feedstock is categorized as waste fines from [redacted] Mill. See Section 3.1 of this report for more information and supporting evidence.

Table 7 summarizes the data points and metrics that underwent validation and verification.

Table 7: Summary of LCA Inputs

Level 1 Categories	Activity	Quantity	Unit
Esourcing	Waste Fines	31,030.61	Short ton
Etransport	Hauling	[redacted]	Short-ton miles
Eapplication	Loading	[redacted]	Gallons of Diesel
	Spreading	[redacted]	Gallons of Diesel
	Conservative estimate of Spreader and Loader travel	[redacted]	Miles
	Agronomic Sampling	[redacted]	Kilometer metric ton
Eapplication	Geochemical Sampling	[redacted]	Kilometer metric ton

Level 1 Categories	Activity	Quantity	Unit
	Conservative estimate of Sampler travel	[redacted]	Miles
	Single Use Paper bags for Sampling	[redacted]	#
	Price of Agronomic Testing	[redacted]	USD
	Price of Geochemical Testing	[redacted]	USD
Eweathering	Agronomic Sampling	[redacted]	Kilometer metric ton
	Geochemical Sampling	[redacted]	Kilometer metric ton
	Conservative estimate of Sampler travel	[redacted]	Miles
	Single Use Paper bags for Sampling	[redacted]	#
	Price of Agronomic Testing	[redacted]	USD
	Price of Geochemical Testing	[redacted]	USD

EcoEngineers confirmed that the plots used for this verification do not overlap other plots used in the Isometric registry. Application acres were confirmed through GIS plotting, virtual site visit confirmation, and document review, noting zero discrepancies.

To confirm the quantity of waste fines, EcoEngineers sampled 5% of the total scale tickets and hauling BOLs for review, noting one discrepancy that was resolved.

Travel distances from the quarry to the plots and physical sample travel to the agronomic and geochemical laboratories were verified through Google Maps and air travel calculators, noting two discrepancies that were resolved.

Individual loading and spreading equipment travel was not directly measured on the field and estimated based on a conservative assumption of the maximum plot radius (at a minimum being

50 miles) multiplied by the number of sites. EcoEngineers reviewed the estimation method and noting one discrepancy that was resolved.

Diesel usage was not directly measured in field but was estimated from a California Air Resource Board accepted “In-use Off-Road Diesel-Fueled Fleets Regulation” emissions calculation method using horsepower, activity hours, and load-dependent emission factors. EcoEngineers reviewed each input parameter noting zero discrepancies.

Application and weathering sampling size, events, paper bag use, and estimated one-way travel for the sampler vendor was verified through laboratory results, monitoring plan documentation, google maps, and GIS files, noting one discrepancy that was resolved.

Agronomic and Geochemical Laboratory costs invoices were reviewed and recalculated, noting zero discrepancies.

5.2: Quantification of CO_2 Removal Certificates (CORCs)

EcoEngineers reviewed the inputs into the CORC Removal Summary using guidelines from the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2, and references from published scientific literature.

The CORC Summary Report quantifies CO_2 Removal Certificates from these inputs and calculated values: amortization time; carbon stored; carbon storage losses; emissions associated with basalt sourcing, transportation, and application; and emissions associated with monitoring. Baseline removal and carbon loss to land use change are zero.

Gross Carbon Stored is calculated via the model simulation as explained in Section 4.1.4 of this report. Output results on the change in calcium, magnesium, and sodium from the baseline post spreading and sampling in round one were compared against the inputs to the Summary CORC Reports, noting two discrepancies that were resolved.

The carbon storage losses have fixed percentage-based values for infield non-carbonic acid neutralization, plant uptake, riverine loss, and marine loss. Lithos calculated 0% infield strong acid weathering derived from fertilizer addition. Standard 5%, 5%, and 10% were utilized for the other three loss pathways respectively as noted in Section 6.7.3 (c, e, f) of the Puro Enhanced Rock Weathering Methodology.

EcoEngineers reviewed the CDR potential calculations against the cited Steinour equations and laboratory basalt results on the percent weight of calcium, magnesium, and sodium.

[redacted]. However, EcoEngineers noted that without the cap, sodium weathering would be greater than 100%. This indicates a potential overestimated CDR. Lithos provided supporting documentation and evidence that sodium weathering higher than 100% “*can be explained by the mobilization of pre-existing soil Na cations that occupied mineral sites before the basalt deployment at baseline and that are subsequently replaced by the release of Ca and Mg cations from weathering.”* Lithos provided supplementary documentation stating that correcting for the sodium replacement only accounts for 20% of the total sodium flushing exceeding the 100% weathering cap, which is due to the variability and noise of agronomic data available. EcoEngineers agrees with the conservative approach of limiting sodium weathering to 100%, which is further affirmed as the model uses other conservative methods such as chromium anchoring, control sites weathering, and stoichiometric constraints.

EcoEngineers compared the emissions associated with sourcing, transportation, application, and monitoring against the verified LCA. See Section 5.1 of this report for more information on the inputs used to calculate these emissions. EcoEngineers noted one discrepancy that was resolved.

Table 8 summarizes the CORC certificates calculation that underwent validation and verification.

Table 8: CORC Summary Report Calculation Inputs

	Value	Unit
Gross Carbon Stored	2,814.0	tonnes CO_2e
Emissions associated with application	101.65	tonnes CO_2e
Emissiongs associated with Monitoring	3.17	tonnes CO_2e
Carbon Storage Loss	562.80	tonnes CO_2e
Amount of material applied during current reporting period	25,524.20	Dry metric tonnes
Total area of application sites	959.04	hectares
CORCs	2,146.38	tonnes CO_2e

Section 6: Accuracy of Asserted Emission Reductions and Removals

6.1: Qualitative Material Misstatement and Non-Conformities Assessment

EcoEngineers noted two findings related to qualitative material misstatements in the Log of Issues (appendix C). The model simulation did not include possible secondary effects on dissolution of grains such as fluid supersaturation, clay formation and surface passivation effects; weather rates being affected by pH; and a respect-to-expected-performance in the field as noted in section 8.1 of the Enhanced Rock Weathering Methodology. Lithos stated they are unable to make necessary changes to include this information. EcoEngineers concluded that since these discrepancies did not affect crediting, the issue was resolved with a qualified positive. The other finding was resolved by Lithos and detailed on the Log of Issues (appendix B).

6.2: Quantitative Material Misstatement Assessment

EcoEngineers noted 14 findings related to quantitative material misstatements in the Log of Issues (appendix C). All issues were resolved and verified as corrected prior to finalizing the report.

Section 7: Conclusions

The EcoEngineers team completed the combined production facility audit and output audit, to a reasonable level of assurance, for the Lithos Mid-Atlantic Facility for the monitoring period of May 25, 2023 to April 29, 2025 in accordance with the criteria listed in Section 2.1 of this report. EcoEngineers verified the CORC summary report values that are listed in Table 8 of this report.

EcoEngineers noted 16 findings related to supporting document omissions, 16 findings related to discrepancies with the submitted data and inputs to the LCA and CORC Summary Report, and 11 findings related to discrepancies with the facility audit documentation. All findings were resolved except for three findings, for which qualifications were specified. See Appendix C for a detailed breakdown of the types of issues found as well as the qualifying statement below.

In conclusion, Lithos prepared and submitted the GHG Statement to Puro.earth **free of material misstatement**; however, elements of the GHG Statement (i.e., Production Facility Audit Documentation) were **not in conformance** with the requirements of the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2 and Stakeholder Engagement Requirements v1.1.

The result is a **Qualified Positive Validation and Verification Statement**. The basis for this statement is summarized in the list below, detailed in this joint validation verification report, the accompanying validation verification statement (appendix F), and is further supported by the other appendices to this report.

Qualifications were issued with regards to:

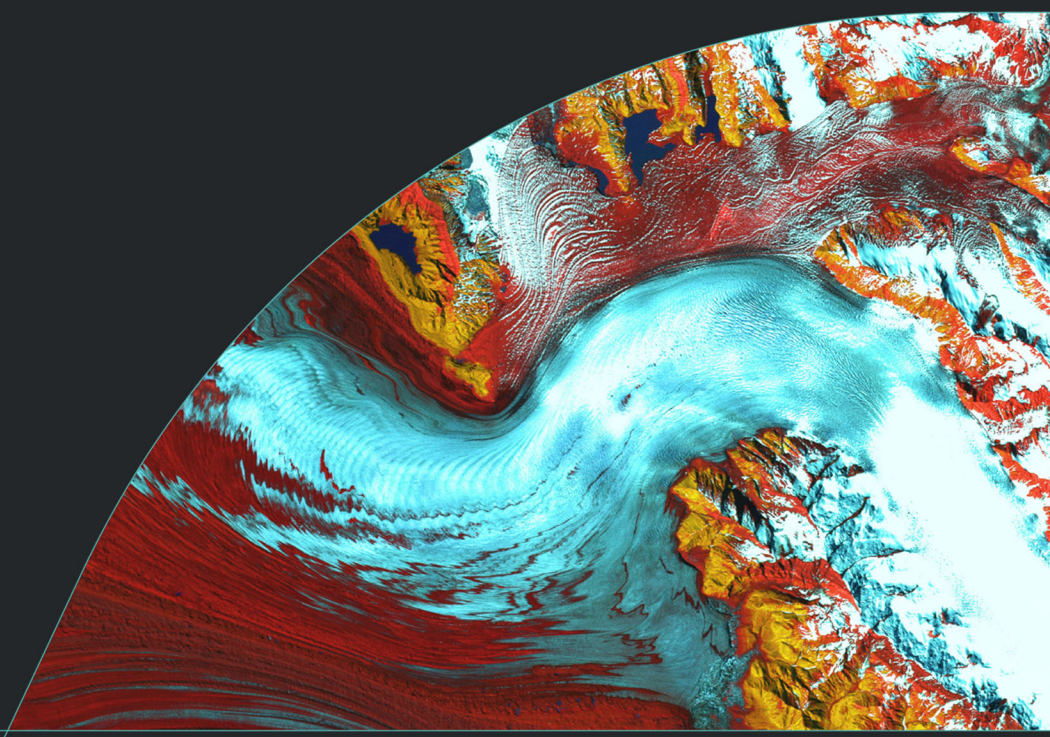
- The ERW is missing possible secondary effects, contrary to requirements from Section 8.1 of the methodology;
- A mailing address for the CO2 Removal Supplier was not provided to stakeholders contrary to requirements of Section 2.3.4 of the Stakeholder Engagement Requirements; and
- There is no mechanism allowing for anonymous stakeholder feedback, contrary to the requirements of Section 2.5.2 of the Stakeholder Engagement Requirements.

Important Information

This report and its attachments and/or other accompanying materials (collectively, the "Deliverables"), were prepared by TPR Enterprises, LLC, d/b/a EcoEngineers ("EcoEngineers"), an LRQA company, solely for the identified client ("Client") and no other party. Client may use the Deliverables solely for the express purpose for which they were prepared, subject to the assumptions and limitations set forth in them and any underlying scope of work, master services agreement, and/or other governing instrument. Client's use of the Deliverables is subject to certain assumptions and limitations, including the following: the Client is the sole intended user of the Deliverables; all information, summaries and/or conclusions set forth in the Deliverables are provided as of a particular date(s) and, as such, the Deliverables have not been updated to address changes and other matters that may have arisen after such particular date(s); and in preparing the Deliverables, EcoEngineers has reviewed and relied on data, documentation, and other information delivered to it or its affiliates and should such information be erroneous, misleading, or incomplete, in whole or in part, same may impact any conclusions set forth in the Deliverables. Any third party (other than Client) who receives, in whole or part, a copy of the Deliverables, may not rely on it for any purpose.

About EcoEngineers

EcoEngineers, an LRQA company, is a consulting, auditing, and advisory firm with an exclusive focus on the energy transition. From innovation to impact, Eco helps its clients navigate the disruption caused by carbon emissions and climate change. Eco helps organizations stay informed, measure emissions, make investment decisions, maintain compliance, and manage data through the lens of carbon accounting. Its team of engineers, scientists, auditors, consultants, and researchers live and work at the intersection of low-carbon fuel policy, innovative technologies, and the carbon marketplace. Eco was established in 2009 to steer low-carbon fuel producers through the complexities of emerging energy regulations in the United States. Today, Eco's global team is shaping the response to climate change by advising businesses across the energy transition. Recently, Eco was named one of the top ten global sustainable consulting companies by Sustainability Magazine. For more information, visit www.ecoengineers.us.



VALIDATION AND VERIFICATION PLAN

CLIENT / RESPONSIBLE ENTITY / INTENDED USER INFORMATION

GHG Program / Intended User	Puro.Earth
Validation Report Type	Project Description and Monitoring Plan
Verification Report Type	CO2 Removal Certificate (CORC) Output Report
Company Name	Lithos Carbon
Company Location and Address	1111B S Governors Avenue #6084 Dover, Delaware, 19904
Company / Responsible Entity Contact	Kirk Liu; Head of Commercial Delivery; kirk@lithoscarbon.com; 425-279-9700 Alex Wolfson; Carbon Program Manager; alex@lithoscarbon.com; 425-279-9700
Project Name / Project ID	Lithos Mid-Atlantic Facility / ID #782763
Project Location and Address	[redacted] Pennsylvania [redacted]
Project Contact	Kirk Liu; Head of Commercial Delivery; kirk@lithoscarbon.com; 425-279-9700 Alex Wolfson; Carbon Program Manager; alex@lithoscarbon.com; 425-279-9700

PROJECT & VALIDATION / VERIFICATION INFORMATION

Sectoral Scope	Project Level 4 Carbon Capture and Storage (CCS), direct air capture (DAC), and other engineered removals
Monitoring Period Dates:	May 25, 2023 to April 29, 2025
Description of Project	The Lithos Mid-Atlantic project activity sources basalt waste product feedstock from a Pennsylvania quarry and applies this feedstock as a soil amendment to nearby application site(s), i.e., working agricultural lands, to assist in soil pH management practices.
Validation Scope	The scope of the validation is to determine whether the Lithos Mid-Atlantic Facility / ID #782763 Project Description and Monitoring Plan conform to the requirements of the Puro.earth Enhanced Rock Weathering Methodology 2022 v.2, Puro.earth Standards, and Requirements.
Validation Objective	The objective of the validation is to assess the likelihood that implementation of the Lithos Mid-Atlantic Facility / ID #782763 project activities described in Project Description and Monitoring Plan will result in the achievement of GHG outcomes as stated by Lithos Carbon and whether the documents conform to the requirements established by Puro.earth Enhanced Rock Weathering Methodology 2022 v.2 and applicable criteria.
Verification Scope	The scope of this verification is to determine to a reasonable level of assurance whether Lithos Carbon has collected data and prepared the CO2 Removal Certificate (CORC) Output Report in conformance with the requirements of the Puro.earth Enhanced Rock Weathering Methodology 2022v.2, ISO 14064-3 and applicable criteria, and whether it is free of material misstatement.
Verification Objective	The objective of the verification is to determine conformance of the CO2 Removal Certificate (CORC) Output Report to the applicable requirements established by Puro.earth Enhanced Rock Weathering Methodology v.2, the ISO Standards and applicable criteria.
Criteria	Validation / Verification will be conducted in accordance with the following regulations and standards: • Puro.earth Enhanced Rock Weathering Methodology 2022 v.2 • Puro.earth Standard General Rules. Version 4.2, approved June 30, 2025 (Puro Standard) • Puro.earth Clarifications for Application of Puro Standard and Methodologies, last updated October 6, 2025 • Puro.earth Additionality Assessment Requirements, Version 2.0, June 7, 2024 • Puro.earth Validation & Verification Requirements, Version 1.2, July 2025 • Puro.earth Stakeholder Engagement Requirements, Version 1.1, May 13, 2024 • Puro.earth Puro Standard Article 6 Procedures, Version 1.2, May 10, 2024 • Puro.earth SDG Assessment Requirements, Version 1.0 • IAF MD 4:2025 IAF Mandatory Document for the Use of Information and Communication Technology (ICT) for Conformity Assessment Purposes, January 30, 2025 • ISO Standard 14064-3:2019 – Specification with guidance for the verification and validation of greenhouse gas statements • Global Reporting Initiative (GRI) Universal Standards 3: Material Topics, 2021
Verification Level of Assurance	Reasonable
Materiality	Errors, omissions, misrepresentations, discrepancies related to ownership or applicability criteria, and non-conformities to Puro.earth criteria and applicable methodology requirements are examples of qualitative materiality considerations that could impact the decisions of EcoEngineers and Puro.earth. The intended user has not set a materiality threshold for verification. Thus, EcoEngineers establishes the quantitative materiality threshold for material misstatement to be ±5% of the reported metric tonnes of CO2 equivalent (tCO_2e) removed. EcoEngineers determines performance materiality considering the quantitative threshold.
GHGs	CO_2, CO_2e
SSRs	Reservoir 1. Superfine basalt silicate feedstock Reservoir 2. Carbonic acid in water from rainwater and root respiration Source 1. Project emissions from sourcing waste fines, transportation of waste fines, application of waste fines (loading, spreading, sampling, testing), weathering Source 2. Loss emissions from sub-process such as alkalinity re-equilibration in riverine and ocean environments, plant uptake losses.

VALIDATION AND VERIFICATION PLAN

ECOENGINEERS VALIDATION / VERIFICATION TEAM

Lead Validator / Verifier	Zoe Nong
Validation / Verification Team Member(s)	Valerie Chan
Technical Lead / Site Visit Auditor	Aimsley Kadlec
Subject Matter Expert	Andrea Adams
Project Manager	Nick Nelson
Independent Reviewer	Jocelyn Stubenthal

SCHEDULE OF VALIDATION / VERIFICATION ACTIVITIES

External Validation / Verification Kickoff & Planning meeting	2025/10/20
Lithos Carbon provides Project Description and Monitoring Plan, CO2 Removal Certificate (CORC) Output Report, calculations, data and information to EcoEngineers	2025/10/16
EcoEngineers conducts strategic analysis and risk assessment, and prepares sampling/evidence-gathering plan	By 10/23/2025
Document Request to Lithos Carbon	As necessary
Site Visit Date	2025/11/06
EcoEngineers conducts document/data review and recalculations	2025/10/01
Initial Log of Issues submission date	2025/10/27
Lithos Carbon responds to and addresses log of issues	Within one week
Independent Review	2025/11/22
Final Log of Issues submission date	As necessary
Lithos Carbon responds to log of issues corrective actions	Within one week
Validation / Verification Report submission date to Puro.Earth and Lithos Carbon	11/28/2025 (estimate)
Exit Meeting	As necessary

SITE VISIT SCHEDULE (Central Time)

2025/11/06 08:30 AM to 1:00 PM	Quarry, Lithos, and two farmer interviews.

Initial Validation / Verification Plan Created	2025/10/10
Final Validation / Verification Plan Date	2025/11/20

Validation / Verification Plan Sign off

Name of Lead Verifier: Zoe Nong

Date: 2025/11/20

Signature of Lead Verifier: 

Puro.Earth
VALIDATION VERIFICATION SITE VISIT PHOTOS

Lithos Carbon Mid-Atlantic Facility

November 6, 2025

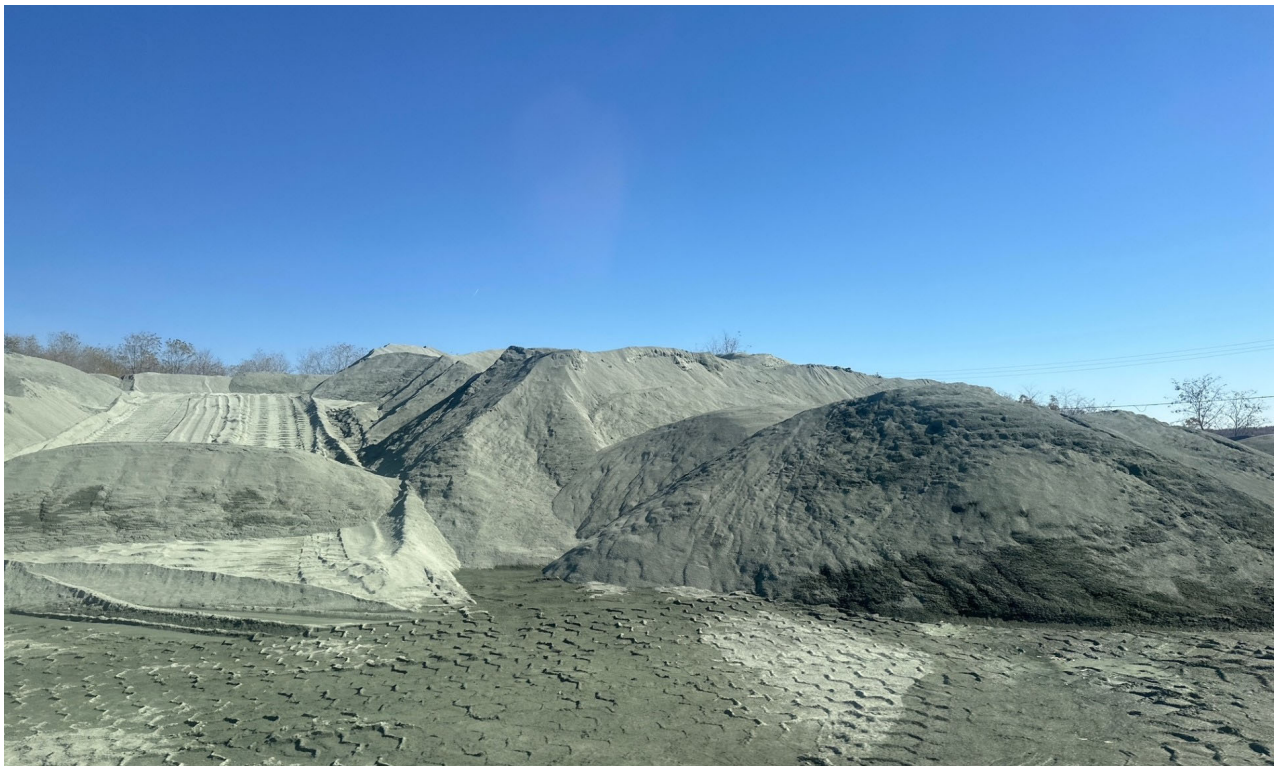
- Grower Application Field

- Quarry Weigh Bridge

- Quarry Aerial Map/Photo

- Waste Basalt Fines

- Waste Basalt Fines Pile 1



- Waste Basalt Fines Pile 2

Log of Issues – Lithos Mid-Atlantic Facility

Lead Verifier: Zoe Nong **Facility (ID#): 782763**

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
1	Discrepancy	10/27/2025	CORC Summary Report: a) The 'Facility and contact details' tab includes an address for the Lithos Mid-Atlantic Facility of 500 108th Ave NE, Bellevue, WA 98004. This address is not consistent with the addresses for either the Production Facility or CO2 Removal Supplier in the Puro Project Description Word document (Puro PD). b) A Reporting Period Start Date of 5/30/2023 is listed in the 'Facility and contact details' tab. This date is inconsistent with the March 21, 2023 Agreement date between Lithos Carbon, Inc. and the Specialty Granules, LLC.; and the dates in the Grower Agreements.	Provided EcoEngineers an updated CORC report statement. **RESOLVED**	Y	Y	Y	11/12/2025
2	Discrepancy	10/21/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-AggregateQuarry does not match Table 2-2, Page 7 in the article from "National Stone Sand & Gravel Association, April 26, 2021".	Provided EcoEngineers an updated LCA. **RESOLVED**	Y	Y	Y	11/6/2025
3	Discrepancy	10/21/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-ShortHaulTruck does not equal the total emissions for the feedstock, fuel, and vehicle operation for all CO2 equivalent GHGs in the R&D Greet1 model.	Provided EcoEngineers an updated LCA. **RESOLVED**	Y	Y	Y	11/6/2025
4	Supporting Document Omission	10/21/2025	LCA CI References: Missing FedEx® Sustainability Insights for Lithos 2024 FedEx activities.	Provided EcoEngineers supporting documentation. **RESOLVED**	N	Y	N	11/6/2025
5	Discrepancy	10/21/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-Paperbag does not match to the third decimal point.	Provided EcoEngineers an updated LCA. **RESOLVED**	N	Y	N	11/6/2025
6	Discrepancy	10/21/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-LoadingPTW and EF-SpreadPTW could not be found within the article.	Provided EcoEngineers an updated LCA and supporting documentation. **RESOLVED**	Y	Y	Y	11/6/2025
7	Discrepancy	10/21/2025	LCA CI References: Could not determine how the referenced CC in kg CO2-eq was calculated for EF-GeoTesting from the " 2023 ALS Sustainability Report".	Provided EcoEngineers supporting documentation. **RESOLVED**	Y	Y	Y	11/6/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
8	Discrepancy	10/21/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-LoaderTransport and EF-SpreaderTransport is not a Well-to-Wheel CC, and is a tank-to-wheel tailpipe emissions CC.	Provided EcoEngineers an updated LCA and supporting documentation. **RESOLVED**	Y	Y	Y	11/6/2025
9	Discrepancy	10/22/2025	LCA CI References: The referenced CC in kg CO2-eq for EF-DieselWTP and EF-CarWTW does not equal the total emissions for the feedstock, fuel, and vehicle operation for all CO2 equivalent GHGs in the Greet 2022 model.	Provided EcoEngineers an updated LCA. **RESOLVED**	Y	Y	Y	11/6/2025
10	Discrepancy	10/28/2025	LCA: The EF-ShortHaulTruck value is not based on the actual distance traveled of each truck, trips taken, and tonnage applied.	Provided EcoEngineers an updated LCA. **RESOLVED**	Y	Y	Y	11/7/2025
11	Discrepancy	10/28/2025	LCA LCI Tab: The LCA estimates [redacted] samples, but [redacted] sample lab results were provided and [redacted] sample locations were reviewed in the GIS files. Are there samples missing from the data provided? Please update all parameters to be based off of actual inputs used during the time period reviewed; EF-FedExAg, EF-FedExGeo, and EF-Paperbag.	Provided EcoEngineers an explanation for the discrepancy and an updated LCA. **RESOLVED**	Y	Y	Y	11/7/2025
12	Discrepancy	10/28/2025	LCA LCI Tab: The LCA estimates the metric tons of soil shipped to the laboratories for analysis and is not based on actual inputs.	Provided EcoEngineers an explanation for the discrepancy and an updated LCA. **RESOLVED**	Y	Y	Y	11/7/2025
13	Supporting Document Omission	10/28/2025	LCA LCI Tab: The loadfactors for the skidsteer and ag-equipment sprayer could not be determined from the data source provided, US California Air Resource Board OFFROAD2017 Emissions Factors.	Provided EcoEngineers supporting documentation. **RESOLVED**	N	Y	N	11/7/2025
14	Supporting Document Omission	10/28/2025	LCA LCI Tab: Missing invoice to support agronomic and geochemical testing purchase orders. The LCA should be based on actual inputs used during the time period reviewed.	Provided EcoEngineers missing documentation and an updated LCA. **RESOLVED**	Y	Y	Y	11/19/2025
15	Supporting Document Omission	10/28/2025	LCA LCI Tab: Missing supporting documentation to confirm the vendor inputs for loading and spreading; the time to load 1 skidsteer bucket and the operating time for ag equipment sprayer / spreader.	Provided EcoEngineers supporting documentation. **RESOLVED**	Y	Y	Y	11/7/2025
16	Supporting Document Omission	10/28/2025	LCA LCI Tab: EF-LoadingPTW and EF-DieselWTP is not based on actual inputs used during the application period. Missing supporting invoices on diesel use.	Provided EcoEngineers missing documentation and an updated LCA. **RESOLVED**	Y	Y	Y	11/7/2025
17	Discrepancy	10/28/2025	LCA LCI Tab: The one-way travel for vendors to the project site and the maximum project radius from the quarry do not match the actual distance traveled.	Provided EcoEngineers an updated LCA. **RESOLVED**	N	Y	N	11/7/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
18	Discrepancy	10/28/2025	CORC Report Summary: Update E_sourcing, E_processing, E_transport, E_application, and the Supporting Information tab once LCA references have been finalized, LOI #2-9.	Provided EcoEngineers an updated CORC report statement. **RESOLVED**	Y	Y	Y	11/19/2025
19	Supporting Document Omission	10/28/2025	CORC Report Summary: For the Supporting Information tab, please provide a breakout or excel file to back up values used for ΔBLP-R1_Mg_eq_total, ΔBLP-R1_Ca_eq_total, and ΔBLP-R1_Na_eq_total for all Growers.	Provide EcoEngineers missing supporting documentation and an updated CORC report statement. **RESOLVED**	Y	Y	Y	11/12/2025
20	Supporting Document Omission	10/28/2025	CORC Report Summary: There are discrepancies between the gross CO2 sequestered calculations and the supporting document "Carbon Dioxide Stored MW". In the Supporting Information tab, Eco is missing the background calculation for the CDR potential (row 35).	Provided EcoEngineers supporting documentation. **RESOLVED**	Y	Y	Y	11/18/2025
21	Discrepancy	10/28/2025	CORC Report Summary: The sum of tCDR @ R1 for sodium is greater that the Total poss tCDR.	Provided EcoEngineers supplementary proof the baseline weathering and counterfactual is zero and provided an updated CORC Report Summary. **RESOLVED**	Y	Y	Y	11/18/2025
22	Supporting Document Omission	10/28/2025	Missing calibration document for the Handheld GPS Device ([redacted]).	Provided EcoEngineers supporting documentation. **RESOLVED**	N	Y	N	11/12/2025
23	Discrepancy	10/28/2025	The Puro Project Description states that " unused or excess basalt material is collected, transported off-site, and properly disposed of." Eco believes this could be a potential baseline source of carbon removal from weathering offsite at the disposal site. Alternatively, any weathering and resulting water pathways that could occur to the Basalt in the baseline scenario should also be included in the CORC Report Summary. This should include any counterfactual information calculated in section 1.3 of the Carbon Dioxide Stored SE document.	Provided EcoEngineers supplementary proof the baseline weathering and counterfactual is zero. **RESOLVED**	Y	Y	Y	11/12/2025
24	Supporting Document Omission	10/30/2025	Please provide reasoning for why the Carbon losses , infield value was zero in Column Y on the Weathering Reporting Events Tab.	Provide EcoEngineers missing documentation. **RESOLVED**	N	Y	N	11/18/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
25	Discrepancy	10/30/2025	The Model Simulation Description does not include "a description of... any possible secondary effects affecting the dissolution of grains such as fluid supersaturation, clay formation and surface passivation effects," The description also does not "include the most important factors arising from the changes in the environment (such as weathering rates being affected by pH, plants taking up and releasing ions etc.)" The description also does not include a "respect to expected performance in the field (e.g. goodness-of-fit indicators, Root Mean Square Error)".	Lithos is "unlikely to have time to upgrade the model in time for this verification, but have noted these points for improvement ahead of the next verification. It is our understanding, from discussions with Puro, that the Model is meant to develop over time and is not used for crediting." **RESOLVED WITH A QUALIFIED POSITIVE OPINION**	N	Y	N	11/12/2025
26	Supporting Document Omission	11/3/2025	Missing the CO2 Removal Supplier Attest to the accuracy of the information provided as required in Section 2.2.4.3 of the General Rules.	Provided EcoEngineers supporting documentation. **RESOLVED**	N	Y	N	11/12/2025
27	Discrepancy	10/27/2025	Puro Project Description v2: a) The page numbers on page 1 are not consistent with the document contents; b) Section 2.2 additional locations should specify location, address, coordinates to the extent possible; c) Business IDs for Lithos Carbon and [redacted], and application site details are missing from Section 2.3; d) Provide Scope and System boundary details in Section 4.1 of the Project Description on the basis of the application site details listed in Section 3.1.1(b) of the Methodology.	Provide EcoEngineers an explanation for discrepancies and an updated Project Description. **RESOLVED**	N	Y	N	11/18/2025
28	Discrepancy	10/27/2025	File names for the LCA Model, SDG Report, and Project Description files do not follow the convention detailed in the Puro Instruction Manual for Audit Package.	Provided EcoEngineers updated files with the required naming format. **RESOLVED**	N	Y	N	11/13/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
29	Discrepancy	10/27/2025	A Technology Readiness Level (TRL) of 7 is specified in Section A6 of the Additionality Document. However, Table 1 of the Puro Additionality Assessment Requirements lists the TRL for enhanced weathering at 3 to 4.	Provide EcoEngineers an updated Additionality document and an explanation for the discrepancy. **RESOLVED**	N	Y	N	11/13/2025
30	Discrepancy	10/27/2025	Puro Stakeholder Engagement Report v1: a) Provide CO_2 Removal Supplier (Lithos) policy details for the continuous stakeholder feedback, and supporting documentation, per Sections 2.1.3, 2.1.4, and 2.5.1 of the Puro Stakeholder Engagement Requirements. b-i) The "Lithos Luncheon (PA).pdf" date of July 26, 2023 is not included in Section 2 of the Puro Stakeholder Engagement Report v1. b-ii) Explain where/how the July 26, 2023 Lithos Luncheon was advertised, per Sections 2.3.1 and 2.3.3 of the Puro Stakeholder Engagement Requirements. c) Provide details regarding the Consultation Activities, i.e., locations of the public meetings, focus group round table, and door to door visits; and Lithos attendees.	Provide EcoEngineers missing supporting documents and an explanation for each Stakeholder requirement. **RESOLVED**	N	Y	N	11/18/2025
31	Supporting Document Omission	10/27/2025	Administrative Document: "Acknowledgement_re_Lithos-[redacted]_Agreement" does not specify the address for the [redacted]).	Provided EcoEngineers supporting documentation that details the location of the quarry. **RESOLVED**	N	Y	N	11/13/2025
32	Supporting Document Omission	10/27/2025	Missing five (5) documents/data listed in Section 3.1.4 of the Methodology: - A certified trade registry extract or similar official document stating that the CO_2 Removal Supplier's organization legitimately exists. - CO_2 Removal Supplier registering the Production Facility in the Puro Registry - Locations of the application sites forming the Production Facility - Whether the Production Facility has benefited from public financial support - Date on which the Production Facility becomes eligible to issue CORCs.	Provided EcoEngineers with the five (5) documents/data listed in Section 3.1.4 of the Methodology. **RESOLVED**	Y	Y	Y	11/12/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
33	Supporting Document Omission	10/27/2025	Provide documents that the farm/land-owners receiving the weathering material are prevented from making claims to include the carbon net-negativity, carbon removal / drawdown / sink aspects of the ERW activity, per Section 3.3.3 of the Methodology.	Provided EcoEngineers statements of non-double counting by associated parties. **RESOLVED**	N	Y	N	11/12/2025
34	Discrepancy	10/27/2025	File names for the LCA Model, SDG Report, and Project Description files do not follow the convention detailed in the Puro Instruction Manual for Audit Package.	Provided EcoEngineers updated files with the required naming format. **RESOLVED**	N	Y	N	11/13/2025
35	Supporting Document Omission	10/27/2025	Puro Additionality v1.9 v1: Section A1 states there is minimal counterfactual weathering. Section 2.3.1 of the Methodology requires a baseline which represents a conservative scenario for what would likely have happened without carbon credits (the "counterfactual" baseline).	Provided EcoEngineers supporting documentation and evidence that no CO2 carbon removals would have occurred through weathering of the waste pile and that this is a conservative baseline scenario. **RESOLVED**	Y	Y	Y	11/13/2025
36	Supporting Document Omission	10/27/2025	Methodology rule 3.2.3: "to demonstrate additionality, the CO2 Removal Supplier must provide full project financials and counter-factual analysis based on baselines that shall be project-specific, conservative and periodically updated." Puro Additionality v1.9 v1 : Provide supporting documentation for the claims stated in Section A.1 regarding: - waste pile water penetration depth and water infiltration rate; -gross carbon removal project potential; and -0.66 tons CO2e removal per 100 hectare per year for regenerative agricultural practice	Provided EcoEngineers with supporting documentation for baseline & additionality statements. **RESOLVED**	N	Y	Y	11/18/2025
37	Discrepancy	10/27/2025	A Technology Readiness Level (TRL) of 7 is specified in Section A6 of the Additionality Document. However, Table 1 of the Puro Additionality Assessment Requirements lists the TRL for enhanced weathering at 3 to 4.	Provided EcoEngineers an updated Additionality document. **RESOLVED**	N	Y	N	11/13/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
38	Supporting Document Omission	10/27/2025	The Simple Cost Analysis Excel file and Section B3 of the Puro Additionality v1.9 v1 Word file both do not document costs and revenues associated with the alternative scenario of regenerative agricultural practices, which is listed in Section A1 of the Puro Additionality v1.9 v1 Word file. Section 3.3.2 of the Puro Additionality Assessment Requirements, Version 2.0 states "The CO2 Removal Supplier shall document the costs and revenues associated with the carbon removal project activity and the alternatives identified and demonstrate that there is at least one alternative which is more profitable than the project activity without carbon finance."	Provided EcoEngineers revised financial additionality documents and provided supporting documentation for the costs detailed in the financial additionality file. **RESOLVED**	N	Y	Y	11/18/2025
39	Discrepancy	10/27/2025	Puro Stakeholder Engagement Report v1: a) Provide CO2 Removal Supplier (Lithos) policy details for the continuous stakeholder feedback, and supporting documentation, per Sections 2.1.3, 2.1.4, and 2.5.1 of the Puro Stakeholder Engagement Requirements. b-i) The "Lithos Luncheon (PA).pdf" date of July 26, 2023 is not included in Section 2 of the Puro Stakeholder Engagement Report v1. b-ii) Explain where/how the July 26, 2023 Lithos Luncheon was advertised, per Sections 2.3.1 and 2.3.3 of the Puro Stakeholder Engagement Requirements. c) Provide details regarding the Consultation Activities, i.e., locations of the public meetings, focus group round table, and door to door visits; and Lithos attendees.	Provided EcoEngineers missing supporting documents and an explanation for each Stakeholder requirement. **RESOLVED**	N	Y	N	11/18/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
40	Discrepancy	10/27/2025	Section 2.3.4 of the Puro Stakeholder Engagement Requirements: a) The sample invitations included in the Stakeholder Supporting Evidence Folder do not appear to include an address by which the CO2 Removal Supplier can be contacted by post/mail. b) The invitation formats listed in Section 2 of the Puro Stakeholder Engagement Report are limited to social media publication, and Opt-in SMS / phone call. Section 2.3.3 of the Puro Stakeholder Engagement requirements states "The CO2 Removal Supplier shall find a suitable way of providing all identified Stakeholders with an invitation. In particular, this involves the consideration of Stakeholders without access to the internet or a mobile device." Were any other methods of invitation beside Facebook social medial posts and mobile text messages used, i.e., local newspaper ads, handouts at public meetings? c) Provide evidence that the identified stakeholders were invited to the stakeholder engagement session(s), i.e., quarry vendor, local state conservation district authority, local university, etc.	Provided EcoEngineers missing supporting documents and an explanation for each Stakeholder requirement. **RESOLVED WITH A QUALIFIED POSITIVE OPINION FOR 40(a)**	N	Y	N	11/18/2025
40 cont.	Discrepancy	10/27/2025	d) Provide supporting evidence of the information & materials presented during the consultation activities (e.g., presentations); feedback received (e.g. meeting notes, questionnaire answer); and responses provided to stakeholders about their feedback (e.g., consultation reports). e) The "Lithos Grievances Procedure" includes a link and screenshot for comments via the Lithos Carbon website. e-i) The document does not specify a procedure to respond to grievances, e.g., response time, documentation of grievances and any on-going exchanges, etc. e-ii) Section 2.5.2 of the Puro Stakeholder Engagement Requirements calls for 'allowing for anonymous feedback'. The form appears to require name and email address and therefore does not allow for anonymous feedback.	Provided EcoEngineers missing supporting documents and an explanation for each Stakeholder requirement. **RESOLVED WITH A QUALIFIED POSITIVE OPINION FOR 40(e)(ii)**	N	Y	N	11/13/2025

#	Type	Date Issued	Issue Description	Resolution	Impact on material misstatement? (Y/N)	Impact on non-conformance? (Y/N)	Impact on adverse validation / verification statement if not addressed? (Y/N)	Date Resolved (mm/dd/yyyy)
40 cont.	Discrepancy	10/27/2025	e-iii) Provide evidence that stakeholders were informed of the ongoing feedback and grievance mechanism, i.e., website contact form. e-iv) What feedback and grievance mechanisms are available to stakeholders that do not have internet access? f) Provide a copy of the post-application/implementation grower feedback form.	Provided EcoEngineers missing supporting documents and an explanation for each Stakeholder requirement. **RESOLVED**	N	Y	N	11/13/2025
41	Discrepancy	10/27/2025	Project Description: The Production Facility Address in Sections 1 and 2.2 correspond to the location of the [redacted] feedstock source (aggregate quarry). This location is not consistent with the production facility definition and rule 3.1.2 of the Puro Enhanced Rock Weathering Methodology. As noted in the Section 2.2 instructions, 'additional locations... can refer to ... sourcing of a specific feedstock'.	Provided EcoEngineers an updated Project Description. **RESOLVED**	N	Y	Y	11/18/2025
42	Discrepancy	11/13/2025	The Production Facility definition/assignment discrepancy noted in Issue 12 above also affects other text in the Project Description, including but not limited to the counterfactual scenario detailed in the Project Description, Section 4.2, paragraph 3.	Provided EcoEngineers an updated Project Description. **RESOLVED**	N	Y	N	11/18/2025
43	Discrepancy	11/13/2025	The Lithos Application Sites file for the [redacted] lists the unique application site identifier as 629. The farmer credit ownership acknowledgement file name specified 809.	Provided an updated document. **RESOLVED**	N	N	N	11/18/2025

References

Beerling, D. J., Epihov, D. Z., Kantola, I. B., Masters, M. D., Reershemius, T., Planavsky, N. J., Reinhard, C. T., Jordan, J. S., Thorne, S. J., Weber, J., Val Martin, M., Freckleton, R. P., Hartley, S. E., James, R. H., Pearce, C. R., DeLucia, E. H., & Banwart, S. A. (2024). Enhanced weathering in the US Corn Belt delivers carbon removal with agronomic benefits. Proceedings of the National Academy of Sciences, 121(9), Article e2319436121. https://doi.org/10.1073/pnas.2319436121

Kantola, I. B., Blanc-Betes, E., Masters, M. D., Chang, E., Marklein, A., Moore, C. E., von Haden, A., Bernacchi, C. J., Wolf, A., Epihov, D. Z., Beerling, D. J., & DeLucia, E. H. (2023). Improved net carbon budgets in the US Midwest through direct measured impacts of enhanced weathering. Global Change Biology, 29(24), 7012–7028. https://doi.org/10.1111/gcb.16903

Navarre-Sitchler, A., Brantley, S. (2007). Basalt weathering across scales. Earth and Planetary Science Letters, 261(1), 321–334. doi:10.1016/j.epsl.2007.07.010

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State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER H3-25-034

Relating to the Accreditation as a Lead Verifier of Low Carbon Fuel Standard (LCFS) Data Reports Pursuant to Section 95502 Title 17, California Code of Regulations

Zoe Nong

WHEREAS, the California Air Resources Board (CARB), pursuant to the California Global Warming Solutions Act of 2006 (Statutes of 2006; Chapter 488; Health and Safety Code sections 38500 et seq.), has established the LCFS program contained in sections 95480-95503, title 17, California Code of Regulations;

WHEREAS, the LCFS program requires the use of independent verifiers for verification of LCFS data reports and establishes requirements for the accreditation of verification bodies and individual verifiers by CARB;

WHEREAS, the Executive Officer or their delegate has determined that the verifier meets the LCFS verifier accreditation requirements in sections 95502(c)(1) through (2) and has met, as applicable, the training and exam requirements in section 95502(a) and (c)(3)(G);

WHEREAS, the Executive Officer has determined that the verifier meets the lead verifier requirements in section 95502(c)(3);

WHEREAS, the Executive Officer has determined that the verifier meets the additional lead verifier requirement for experience in alternative fuel production technology and process engineering, pursuant to section 95502(c)(4), to lead validation of Fuel Pathway Applications and verification of Fuel Pathway Reports;

NOW, THEREFORE, IT IS ORDERED, that Zoe Nong is accredited to conduct LCFS verification services as a Lead LCFS Verifier for Fuel Pathways and Alternative Fuel Transactions, for three years from the date of execution of this order, provided that the following terms and conditions are met:

1. The verifier must cooperate fully with the Executive Officer or the authorized representative during any audit of the verifier or regulated entity for each verification performed, and must provide verification services as specified in sections 95500-95503, title 17, California Code of Regulations.
2. The verifier must provide and update accurate and complete conflict of interest information through the appropriate verification body as required by section 95503, title 17, California Code of Regulations.

BE IT FURTHER ORDERED, this accreditation may be modified or revoked by the Executive Officer as provided in section 95502(a) that incorporates by reference MRR section 95132(d), title 17, California Code of Regulations.

Executed at Sacramento, California on June 25, 2025.

Natalie Lee, Assistant Division Chief
Industrial Strategies Division
Delegated signatory for Dr. Steven Cliff, Executive Officer

Environment and Climate Change Canada | Environnement et Changement climatique Canada

Canada

Certificate of Completion
Certificat de réussite

VALERIE CHAN

Has completed the Clean Fuel Regulations Verifier's Basics Training Course on May 14th, 2025

A complété la formation de base pour les vérificateurs du Règlement sur les combustibles propres le 14 mai 2025

Christine Schuh

Dr. Christine Schuh, Senior Program Engineer and Course Instructor

Lorri Thompson

Lorri Thompson, Manager, Clean Fuel Regulations

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER H3-24-001

Relating to the Accreditation as a Lead Verifier of Low Carbon Fuel Standard (LCFS) Data Reports Pursuant to Section 95502 Title 17, California Code of Regulations

Andrea Adams

WHEREAS, the California Air Resources Board (CARB), pursuant to the California Global Warming Solutions Act of 2006 (Statutes of 2006; Chapter 488; Health and Safety Code sections 38500 et seq.), has established the LCFS program contained in sections 95480-95503, title 17, California Code of Regulations;

WHEREAS, the LCFS program requires the use of independent verifiers for verification of LCFS data reports and establishes requirements for the accreditation of verification bodies and individual verifiers by CARB;

WHEREAS, the Executive Officer has determined that the verifier meets the LCFS verifier accreditation requirements in sections 95502(c)(1) through (2) and has met, as applicable, the training and exam requirements in section 95502(a) and (c)(3)(G);

WHEREAS, the Executive Officer has determined that the verifier meets the lead verifier requirements in section 95502(c)(3);

WHEREAS, the Executive Officer has determined that the verifier meets the additional lead verifier requirement for experience in alternative fuel production technology and process engineering, pursuant to section 95502(c)(4), to lead validation of Fuel Pathway Applications and verification of Fuel Pathway Reports;

NOW, THEREFORE, IT IS ORDERED, that Andrea Adams is accredited to conduct LCFS verification services as a Lead LCFS Verifier for Fuel Pathways and Alternative Fuel Transactions, for three years from the date of execution of this order, provided that the following terms and conditions are met:

1. The verifier must cooperate fully with the Executive Officer or the authorized representative during any audit of the verifier or regulated entity for each verification performed, and must provide verification services as specified in sections 95500-95503, title 17, California Code of Regulations.
2. The verifier must provide and update accurate and complete conflict of interest information through the appropriate verification body as required by section 95503, title 17, California Code of Regulations.

BE IT FURTHER ORDERED, this accreditation may be modified or revoked by the Executive Officer as provided in section 95502(a) that incorporates by reference MRR section 95132(d), title 17, California Code of Regulations.

Executed at Sacramento, California on January 10, 2024.

Matthew Botill, Division Chief, ISD
California Air Resources Board

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER H3-22-099

Relating to the Accreditation as a Lead Verifier of Low Carbon Fuel Standard (LCFS) Data Reports Pursuant to Section 95502 Title 17, California Code of Regulations

Jocelyn Stubenthal

WHEREAS, the California Air Resources Board (CARB), pursuant to the California Global Warming Solutions Act of 2006 (Statutes of 2006; Chapter 488; Health and Safety Code sections 38500 et seq.), has established the LCFS program contained in sections 95480-95503, title 17, California Code of Regulations;

WHEREAS, the LCFS program requires the use of independent verifiers for verification of LCFS data reports and establishes requirements for the accreditation of verification bodies and individual verifiers by CARB;

WHEREAS, the Executive Officer has determined that the verifier meets the LCFS verifier accreditation requirements in sections 95502(c)(1) through (2) and has met, as applicable, the training and exam requirements in section 95502(a) and (c)(3)(G);

WHEREAS, the Executive Officer has determined that the verifier meets the lead verifier requirements in section 95502(c)(3);

WHEREAS, the Executive Officer has determined that the verifier meets the additional lead verifier requirement for experience in alternative fuel production technology and process engineering, pursuant to section 95502(c)(4), to lead validation of Fuel Pathway Applications and verification of Fuel Pathway Reports;

NOW, THEREFORE, IT IS ORDERED, that Jocelyn Stubenthal is accredited to conduct LCFS verification services as a Lead LCFS Verifier for Fuel Pathways and Alternative Fuel Transactions, for three years from the date of execution of this order, provided that the following terms and conditions are met:

1. The verifier must cooperate fully with the Executive Officer or the authorized representative during any audit of the verifier or regulated entity for each verification performed, and must provide verification services as specified in sections 95500-95503, title 17, California Code of Regulations.
2. The verifier must provide and update accurate and complete conflict of interest information through the appropriate verification body as required by section 95503, title 17, California Code of Regulations.

BE IT FURTHER ORDERED, this accreditation may be modified or revoked by the Executive Officer as provided in section 95502(a) that incorporates by reference MRR section 95132(d), title 17, California Code of Regulations.

Executed at Sacramento, California on February 13, 2023.

Matthew Botill, Division Chief, ISD
California Air Resources Board

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER H3-25-021

Relating to the Accreditation as a Lead Verifier of Low Carbon Fuel Standard (LCFS) Data Reports Pursuant to Section 95502 Title 17, California Code of Regulations

Aimsley Kadlec

WHEREAS, the California Air Resources Board (CARB), pursuant to the California Global Warming Solutions Act of 2006 (Statutes of 2006; Chapter 488; Health and Safety Code sections 38500 et seq.), has established the LCFS program contained in sections 95480-95503, title 17, California Code of Regulations;

WHEREAS, the LCFS program requires the use of independent verifiers for verification of LCFS data reports and establishes requirements for the accreditation of verification bodies and individual verifiers by CARB;

WHEREAS, the Executive Officer or their delegate has determined that the verifier meets the LCFS verifier accreditation requirements in sections 95502(c)(1) through (2) and has met, as applicable, the training and exam requirements in section 95502(a) and (c)(3)(G);

WHEREAS, the Executive Officer has determined that the verifier meets the lead verifier requirements in section 95502(c)(3);

WHEREAS, the Executive Officer has determined that the verifier meets the additional lead verifier requirement for experience in alternative fuel production technology and process engineering, pursuant to section 95502(c)(4), to lead validation of Fuel Pathway Applications and verification of Fuel Pathway Reports;

NOW, THEREFORE, IT IS ORDERED, that Aimsley Kadlec is accredited to conduct LCFS verification services as a Lead LCFS Verifier for Fuel Pathways and Alternative Fuel Transactions, for three years from the date of execution of this order, provided that the following terms and conditions are met:

1. The verifier must cooperate fully with the Executive Officer or the authorized representative during any audit of the verifier or regulated entity for each verification performed, and must provide verification services as specified in sections 95500-95503, title 17, California Code of Regulations.
2. The verifier must provide and update accurate and complete conflict of interest information through the appropriate verification body as required by section 95503, title 17, California Code of Regulations.

BE IT FURTHER ORDERED, this accreditation may be modified or revoked by the Executive Officer as provided in section 95502(a) that incorporates by reference MRR section 95132(d), title 17, California Code of Regulations.

Executed at Sacramento, California on June 25, 2025.

Natalie Lee, Assistant Division Chief
Industrial Strategies Division
Delegated signatory for Dr. Steven Cliff, Executive Officer

Application Grower Locations

Grower	Unique Identifier	Coordinates
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
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