



Verification Report

CAR1335 – Coffeyville NAP2
Reporting Period: August 31, 2022 – May 3, 2023

Prepared for:
ClimeCo Corp MCK NAP2, LLC

November 22, 2023

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1.0 Introduction

Ruby Canyon Environmental, Inc. (RCE), a subsidiary of TÜV SÜD America, was contracted by ClimeCo LLC (ClimeCo) to perform the verification of the Coffeyville NAP2 project (Project) for the reporting period August 31, 2022 through May 3, 2023 to the Climate Action Reserve (Reserve) Nitric Acid Production Project Protocol Version 2.2 (Protocol). The Project involves GHG emission reductions from the destruction of nitrous oxide (N₂O).

1.1 Project Background & Site Description

The Project activity consists of the installation and operation of a tertiary abatement catalyst on the Girdler High Pressure NAP2 at Coffeyville Resources Nitrogen Fertilizer, LLC's (CRNF) facility located in Coffeyville, Kansas. The tertiary catalyst was installed downstream of the ammonia oxidation reactor for the purpose of decomposing N₂O and reducing the quantity of N₂O that would have otherwise been released to the atmosphere. CRNF is the project owner and is responsible for ongoing operation and maintenance of the monitoring system and data acquisition and handling system. ClimeCo is the technical consultant to CRNF and is responsible for overall program management, development of monitoring reports, and oversight of the verification process. ClimeCo Corp MCK NAP2, LLC, a wholly owned subsidiary of ClimeCo, acts as the Project Developer and has all rights to any generated emission reductions.

This is the verification of the seventh reporting period for the Project. The start date of this reporting period is the same as the end date of the previous reporting period; however, RCE confirmed that emission reductions were claimed until 3:00pm on August 31, 2022 during the previous reporting period and after 4:00pm on that day during this reporting period. The reporting period includes two campaigns:

- Campaign 44 from August 31, 2022 at 5:33pm to January 11, 2023 at 9:25am
- Campaign 45 from January 11, 2023 at 9:13pm to May 2, 2023 at 5:00am

The actual campaign start and end dates and times are reflected, but maintenance periods between campaigns are included in the reporting period to ensure contiguous reporting.

1.2 Responsible Parties

Nitric Acid Plant Owner and Operator

Coffeyville Resources Nitrogen Fertilizer, LLC (CRNF)
701 E Martin St.
Coffeyville, KS 67337

Project Developer

ClimeCo Corp MCK NAP2, LLC (ClimeCo)
10 North Reading Avenue
Boyertown, PA 19512

CRNF and ClimeCo are responsible for the preparation and fair presentation of the GHG statement in accordance with the criteria listed below in Table 1.

1.3 Verification Team

RCE is responsible for expressing an opinion on the GHG statement based on the verification. The RCE verification team consisted of the following individuals who were selected based upon verification

experience under the Reserve’s program and knowledge of U.S. EPA regulations and the nitric acid plant sector.

Lead Verifier: Nina Pinette

Verifier: Issaí Medellín

Senior Internal Reviewer: Phillip Cunningham

1.4 Objectives

The goal of the verification activities was to ensure that the claimed GHG emission reductions are complete, consistent, accurate, transparent, and permanent and that the Project was in compliance with the Protocol’s project additionality, monitoring, and reporting requirements. Furthermore, the verification activities ensure that the data provided to RCE is well documented and free of any material errors or omissions.

1.5 Scope

The scope of the verification consisted of the following independent and objective activities:

- Review the Project Monitoring Plan,
- Review Project boundaries,
- Review Project eligibility,
- Review Project data acquisition and quality control procedures,
- Conduct a virtual site visit to the Project,
- Review Project’s historical campaign data and calculation of permitted operating conditions and HNO_3max ,
- Review the Project’s baseline emissions data,
- Review the Project’s emission reduction calculations,
- Review Project documents and data against the Verification Criteria listed in Table 1,
- Issue requests for corrective actions, non-material findings, additional documentation, and clarifications, as necessary, and
- Issue a Verification Report, List of Findings, and Verification Opinion to ClimeCo and the Reserve.

1.6 Verification Criteria

The verification criteria are shown in Table 1.

Table 1 - Verification Criteria

Criteria	Details
Standard of Verification	• Nitric Acid Production Project Protocol Version 2.2 (April 18, 2019) (Protocol) • Verification Program Manual (February 3, 2021) • Reserve Offset Program Manual (March 12, 2021) • Policy Memo: Use of Global Warming Potential Values for All Offset Protocols (July 13, 2022) • Variance Determination (August 18, 2023)
Verification Process	• The Reserve Verification Program Manual (February 3, 2021) • ISO 14064-3:2019 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas statements”

Level of Assurance	Reasonable assurance
Materiality	99% materiality threshold (<1% error) because total annual ERs are >100,000 tCO ₂ e.

2.0 Verification Activities Summary

RCE developed a verification plan to be followed throughout the verification. The verification plan consisted of the following activities:

- RCE completed the Project NOVA/COI form to identify any potential conflicts of interest with the Project or Project developer. The NOVA/COI form was submitted to the Reserve's online registry, and the COI assessment revealed no conflicts of interest and was approved by the Reserve on May 5, 2023. The NOVA/COI form was resubmitted to notify the Reserve of a change to the verification team on September 27, 2023.
- RCE held a verification kickoff meeting with ClimeCo on June 1, 2023. During the kickoff meeting RCE reviewed the verification objectives and process, the verification schedule, and requested the verification background documents.
- RCE performed a strategic review and risk assessment of the received data and support documents to understand the scope and areas of potential risk in the GHG emissions reductions. ClimeCo submitted an Extraordinary Circumstances Request, and the Reserve allowed RCE to conduct the site visit virtually. RCE assessed the risk of conducting a virtual site visit instead of an onsite visit as part of its risk assessment.
- RCE developed a risk-based evidence-gathering plan based upon the strategic review and risk assessment. The verification plan and evidence-gathering plan were used throughout the verification and were revised as needed based upon additional risk assessments.
- RCE conducted a site visit to the Project on July 11, 2023. During the site visit RCE inspected the continuous emission monitoring system (CEMS) equipment; observed the onsite GHG management systems and data gathering, monitoring and handling practices; and interviewed key personnel. The use of this method was effective in achieving the verification objectives.
- RCE conducted a detailed desktop review of submitted material including evidence of regulatory compliance, documentation of ongoing QA/QC procedures, source data, and emission reduction calculations.
- RCE submitted requests for corrective actions, non-material findings, additional documentation, and clarifications, as necessary to ClimeCo throughout the verification.
- RCE's Senior Internal Reviewer conducted a review of the verification evidence-gathering activities, Verification Report, and Verification Opinion.
- RCE issued a final Verification Report, Verification Opinion, and List of Findings.
- RCE held an exit meeting with ClimeCo.

3.0 Verification Findings

3.1 Assessment of the GHG Reduction Project Operations

The Project destroys N₂O from a nitric acid plant (NAP) via a tertiary abatement catalyst downstream of the ammonia oxidation reactor (AOR). Direct measurements of the N₂O concentration in the tail gas and the stack gas are monitored continuously using a CEMS. StackVision, the plant data acquisition system (DAS), includes a PLC, local PC, and server-based system that is used for CEMS data monitoring,

recordkeeping, and reporting. The system monitors gas flow rate, N₂O concentration in the tail gas and stack gas, process temperature, pressure, and ammonia-to-air ratio on a continuous basis and records the data every minute, meeting Protocol requirements.

RCE reviewed the installation and certification, calibration, and accuracy testing of the project monitoring equipment per manufacturer’s specifications, confirmed that the requirements of the Protocol were met after a variance was granted on August 26, 2020 during the verification of the first reporting period, and verified the data management systems in place at the Project. During that verification, RCE confirmed the installation of a tertiary abatement catalyst by reviewing photographs of the project and conducting a virtual site inspection via video. RCE also reviewed company records of NAP operation, maintenance, and downtime and verified that the CEMS monitoring data that CRNF provided to ClimeCo were used as the raw data for the GHG assertion. RCE determined that the Project adhered to the methodology defined in the Monitoring Plan Version 3.2 throughout the verification and the parameters monitored are in accordance with Table 6.1 of the Protocol.

3.2 GHG Project Boundary (sources, sinks and/or reservoirs)

According to the Protocol, CO₂, CH₄, and N₂O are included from the Baseline and Project activities for tertiary abatement projects. Since the Project has no ammonia input to the N₂O destruction facility, uses no hydrocarbons as reducing agents or for reheating the tail gas, and has no external energy input to reheat the tail gas, N₂O is the only GHG included from the Baseline and Project activities for this Project.

Table 2 lists the sources of GHG emissions reviewed during the verification of the Project.

Table 2 - Project GHG Sources, Sinks and Reservoirs

Activity	GHG Sources, Sinks & Reservoirs
Baseline	N₂O vented to the atmosphere.
Project	N₂O vented to the atmosphere

3.3 Project Eligibility Criteria

The Protocol specifies five eligibility rules that GHG Project developers must meet to register reductions with the Reserve. Below is a summary of the Protocol’s eligibility rules and the Project’s compliance to each requirement.

- Eligibility Rule I: Location**
 The Project is located at a nitric acid plant in Coffeyville, Kansas, U.S. The Project therefore meets the location eligibility requirement.
- Eligibility Rule II: Project Start Date**
 The Project start date for a tertiary catalyst project is defined as the date on which nitric acid production first commences after installation of the tertiary N₂O abatement technology. RCE verified October 27, 2019 as the project start date. RCE reviewed evidence to support this date including the NAP2 Startup Log which shows that the plant shut down on October 14, 2019 “to install N₂O abatement reactor tie ins” and then restarted on October 27, 2019. This date is also consistent with the start of the Project’s first reporting period.
- Eligibility Rule III: Project Crediting Period**
 The crediting period for a nitric acid project is approximately ten years in length and aligns with the end of the last full campaign that begins in the tenth year of reporting. This reporting period is within

the Project's first crediting period which began on the Project start date, October 27, 2019, and is estimated to end on or around October 26, 2029.

- **Eligibility Rule IV: Additionality**

Legal Requirement Test

During the site visit, RCE interviewed CRNF and ClimeCo about the procedures to ensure that the Project meets environmental compliance requirements and the Legal Requirement Test. There have been no changes for this reporting period. RCE confirmed that there are currently no laws requiring the abatement of N₂O at the plant. In addition, CRNF monitors any change in regulations that may affect eligibility. RCE reviewed CRNF's renewed Title V Permit which expires on December 20, 2026. RCE also verified that the project developer accurately completed the Attestation of Voluntary Implementation form and uploaded it to the Reserve.

Performance Standard Test

RCE verified that the Project satisfies the Performance Standard by installing a new tertiary N₂O abatement catalyst. RCE reviewed plant data indicating the installation of the catalyst in October 2019.

- **Eligibility Rule V: Regulatory Compliance**

RCE verified that the Project was in material compliance with all applicable laws throughout the reporting period. RCE reviewed the U.S. EPA's Enforcement and Compliance History Online (ECHO) database and any entries associated with the CRNF facility. There were no entries for any issues during, just prior to, or just after this reporting period.

RCE submitted a records request to the Kansas Department of Health and Environment (KDHE), and there were no records returned from the Bureau of Air indicating that there were violations at the NAP during the reporting period. No other bureaus responded to the request.

Finally, RCE verified that the Attestation of Regulatory Compliance was correctly completed and uploaded to the Reserve.

3.4 Ownership of GHG Reductions

The Project Developer, ClimeCo Corp MCK NAP2, LLC owns full right to any emission reductions associated with the project for this reporting period. RCE reviewed the Joint Development Agreement between CRNF and ClimeCo Corp MCK NAP2, LLC as evidence. RCE also verified that the Attestation of Title was correctly completed and uploaded to the Reserve after the end of the reporting period.

3.5 Assessment of Information System Controls

RCE's review of the GHG management systems took place during the site visit through observations of onsite procedures and interviews with Project key personnel. During the site visit for the verification of the first reporting period, RCE also interviewed an engineer from Environmental Systems Corporation (ESC), the supplier of the CEMS software, StackVision. The reviews included confirming that the Project monitoring was done by direct measurements from the CEMS for both gas flow rates and N₂O concentrations. The Project uses a Rosemount 3051SMV flow meter to measure gas flows in the stack and two ABB Uras 26 AO2020 Series gas analyzers to measure N₂O concentrations in the tail gas and stack gas. RCE confirmed the locations of the sample probes within the stack during a tour of the Project during the site visit. RCE confirmed with ClimeCo that there have been no changes during this reporting period.

The Project uses the CEMS DAS, StackVision, coupled with the PLC to electronically log the data. The PLC temporarily stores data, and the StackVision server stores data forever. RCE verified that the data management systems met the requirements of Section 6.2.2 of the Protocol.

3.6 CEMS Installation and Certification

The Protocol states that the project developers follow the CEMS installation and certification requirements:

- 40 CFR Part 60, Sec. 60.13
- 40 CFR Part 60, Appendix B, Performance Specification 2
- 40 CFR Part 75, Appendix A, Sec. 6

RCE verified that the Project met the initial CEMS installation and certification requirements during its verification of the Project's first reporting period. As is the case with most NAPs located in the U.S., parts of the Project CEMS were installed prior to the Project; however, the Project conducted the tests for the Part 75 CEMS installation and certification specifically for this Project. Some of the tests were conducted after the start of the reporting period, which did not meet Protocol requirements, but ClimeCo requested a variance, which was granted by the Reserve on August 26, 2020, to meet the Protocol requirements for the first reporting period.

RCE verified that the following requirements were met for installation and certification of the CEMS:

7-day Calibration Error Test:

The 7-day calibration error test was not conducted for the flow meter. The Project's August 26, 2020 variance included accepting this missing test. RCE reviewed the results of the 7-day calibration error tests performed for the inlet analyzer (11/14/2019 – 11/20/2019) and outlet analyzer (11/1/2019 – 11/7/2019). The percent calibration errors were within the allowable range. The tests for both analyzers were after the start of the reporting period, and the Project's variance also includes accepting the results of these tests. RCE verified that the Project meets the variance conditions listed above.

Linearity Check:

Linearity checks were not performed for the inlet or outlet analyzers. RCE verified that the Project complied with the variance conditions listed above.

RATA and bias tests:

RCE reviewed the results of the RATAs that were conducted on November 21, 2019 for the flow meter, November 21, 2019 for the inlet analyzer, and September 18, 2019 for the outlet analyzer. The relative accuracy (RA) for all three was within the allowable range and less than 7.5%. The flow meter required a bias adjustment factor (BAF) of 1.058 and both analyzers did not require a BAF.

Cycle Time Test:

RCE reviewed the results of the cycle time tests conducted for the inlet analyzer (11/14/2019 – 11/20/2019) and the outlet analyzer (9/15/2019 – 9/21/2019) which ensure that the monitoring system is capable of completing at least one cycle of sampling, analyzing, and data recording every 15 minutes. Both analyzers passed the test.

RCE verified that the Project met all Protocol requirements for CEMS installation and certification or that the Project was approved to apply methods outlined in the variance determination dated August 26, 2020.

3.7 Ongoing CEMS QA/QC Program

RCE confirmed that the Project met the ongoing CEMS QA/QC requirements throughout the reporting period.

3.7.1 Daily Requirements

RCE reviewed evidence that the daily calibration error tests were performed for the N₂O analyzers. The analyzers perform automatic daily calibration error tests, and StackVision records the results of the checks. The limit for being out of control/failed is set to 5%. If the analyzer fails the check, a technician is alerted immediately, and another check is conducted. If it fails again, the technician will clean the instrument. If there is no successful check within six hours, data substitution will be applied.

RCE reviewed the raw data and results of each test. RCE also confirmed that calibration adjustments are performed if necessary, data is validated daily, data is continuously monitored and recorded every minute, and QA checks are performed.

There were some instances during the reporting period where the results of the automatic calibration error test for the inlet and outlet analyzers were “failed” or “error”. Each time, the analyzer was checked again and passed the check, the instrument was considered out of control and data substitution was applied for N₂O concentration, or the plant was not operating during the check.

3.7.2 Quarterly Requirements

RCE verified that the following quarterly assessments were performed according to Protocol requirements:

Calibration Error Test:

The Project conducted the quarterly calibration error tests for the flow meter for the third and fourth quarters of 2022 and for the first quarter of 2023, on August 24, 2022, December 8, 2022 and March 22, 2023, respectively. RCE viewed the results of each quarterly test and verified that all results were within the +/- 3 percent threshold as required by the Protocol.

RCE also confirmed that calibration adjustments are performed if necessary, data is validated, data is continuously monitored and recorded every minute, and QA checks are performed.

Leak Check:

RCE reviewed evidence that the quarterly leak checks were conducted for the flow meter for the third and fourth quarters of 2022 and for the first quarter of 2023. The leak checks were conducted with the calibration error tests described above. RCE viewed the results of each quarterly check which indicated that the meter passed each time.

Flow-to-Load or Heat Rate Evaluations:

The Protocol states that units not producing electrical output or thermal output are exempted from the flow-to-load ratio test requirements. The Project meets this exemption and is therefore not required to perform this quarterly assessment.

Linearity Checks

RCE confirmed that the quarterly linearity checks were performed for the N₂O analyzers. Linearity checks were conducted for the inlet and outlet analyzers in each quarter during the project campaigns that did not include RATAs: on December 7, 2022 (quarter 4 of 2022) and March 22, 2023 (quarter 1 of 2023, only for inlet analyzer). RCE verified that the results of all checks met Protocol and Part 75 requirements. The results were within the required range (<5%) for low-level, mid-level, and high-level gas concentrations.

The inlet and outlet analyzers had RATAs in the third quarter of 2022 and the outlet analyzer had a RATA during the first quarter of 2023.

Data Validation

RCE confirmed that the results of all QA/QC checks were within the ranges required by the Protocol and 40 CFR Part 75 Appendix B requirements.

3.7.3 Annual and Semi-Annual Assessments

RCE reviewed the results of the RATAs conducted on August 23, 2022 for both analyzers and the flow meter and on February 8, 2023 for the outlet analyzer. DeNovo Global Technologies, Inc. conducted all RATAs using test methods in accordance with 40 CFR, Part 75, Appendix A.

The results are shown in Table 3, below.

Table 3 – RATA Results		
Equipment	8/23/2022	2/8/2023
N ₂ O Inlet Analyzer	2.9%	-
N ₂ O Outlet Analyzer	9.9%	8.7%
Flow Meter	1.9%	-

The results of the August 23, 2022 RATAs for the N₂O inlet analyzer and flow meter showed the relative accuracy to be within the acceptable range (below 10%) and below 7.5 percent, requiring annual RATAs for both instruments in the future. The results of the August 23, 2022 RATA for the N₂O outlet analyzer showed the relative accuracy to be within the acceptable range (below 10%) but above 7.5 percent, requiring the next RATA to be a semiannual RATA. That semiannual RATA on February 8, 2023 showed the relative accuracy to be within the acceptable range (below 10%) but above 7.5 percent, requiring a semiannual RATA in the future.

As a result of the bias tests during the August 23, 2022 and February 8, 2023 RATAs, only the N₂O outlet analyzer required a BAF. The BAF from the August 23, 2022 RATA was applied to the N₂O outlet concentration starting at the beginning of the reporting period (8/31/2022) until February 7, 2023, and the BAF from the February 8, 2023 RATA was applied to the N₂O outlet concentration from February 8, 2023 until the end of the reporting period (3/3/2023) as per the requirements of Part 75 Appendix A Section 7.6.5. RCE verified the BAFs and that they were applied correctly to the raw data. The inlet analyzer and flow meter did not require BAFs during this reporting period.

The results are shown in Table 4, below.

Table 4 - Bias Adjustment Factors		
Equipment	08/31/2022 – 02/07/2023, per 08/23/2022 RATA	02/08/2023 – 05/03/2023, per 08/23/2022 or 02/08/2023 RATA
N ₂ O Inlet Analyzer	None	None
N ₂ O Outlet Analyzer	1.094	1.078
Flow Meter	None	None

3.7.4 Missing Data Substitution

During the Project campaigns missing data substitution methods were applied for a total of 233 hours for inlet N₂O concentration, 119 hours for N₂O outlet concentration, and 1 hour for flow. ESC, the supplier of the DAS, StackVision, programmed the DAS to automatically calculate the substitute values based on the

guidance in the Protocol and Part 75 Section 75.33. RCE confirmed that the values were appropriately substituted.

3.8 Assessment of GHG Emissions Reductions Calculations

The emission reduction calculations assessment included a review of the historical, baseline, and project assumptions, data inputs, data management, and the accuracy of calculations. RCE assessed the information generated from the historical and Project campaigns and evaluated the completeness of the data and how it is transferred from CRNF's DAS to ClimeCo's GHG calculation database.

The Protocol requires a series of data analyses and calculation steps to quantify the GHG emission reductions. ClimeCo managed the data in a Microsoft Access database file using various queries of the raw data and provided the data to RCE in a MS Excel spreadsheet. RCE reviewed the queries/formulas and data outputs for compliance with the Protocol.

RCE confirmed that all data was normalized to 0°C and 101.325 kPa in the calculation database/spreadsheets. ClimeCo also performed unit conversions for some monitoring parameters, and RCE confirmed that the conversions were performed correctly and that the raw data was converted to the units required by the Protocol for all parameters.

Historical Campaigns

RCE verified the historical campaigns during its verification of the Project's first reporting period. The Project was implemented at an existing NAP; however, due to an erroneous meter there was insufficient data for the Project to use five historical years to calculate HNO_3 max. ClimeCo instead used five campaigns to calculate HNO_3 max. RCE reviewed historical data for five campaigns August 9, 2017 and August 26, 2019 used to determine HNO_3 max, 396 t HNO_3 /day.

RCE also reviewed the Project's established allowable operating conditions (AOCs) for temperature, pressure, and ammonia-to-air ratio, which were reestablished during the reporting period three after the operation of the plant was modified to balance process conditions in the reactor and the absorber to maximize the process efficiency. These upgrades required establishing new AOCs. ClimeCo hired a third-party engineer to review the modifications to the plant and to determine revised AOCs based on a technical review of the plant design. The Project requested and was granted a variance on July 19, 2021 during the verification of a prior reporting period to accept use of the revised AOCs determined by the third party engineer.

The AOCs are:

- Oxidation temperature: min. = 857°C, max. = 927°C
- Oxidation pressure: min. = 6.21 bar, max. = 9.17 bar
- Ammonia-to-Air Ratio: max. = 9.92% (this did not change from what was calculated using historical data)

RCE confirmed that the values for each AOC were used in the calculations for these Project campaigns.

Baseline Emissions

Tertiary abatement projects must sample the tail gas prior to entering the tertiary abatement catalyst. The inlet analyzer continuously measures the N_2O concentration in the gas. ClimeCo calculated baseline emissions following section 5.2.2 for any time periods when actual average daily operating conditions for pressure, temperature, and ammonia-to-air ratio were outside of the AOCs. ClimeCo used the lower of the two options provided for each hour outside of the AOCs. RCE confirmed that the calculations for percent of time that the plant operated outside of the AOCs were materially correct, less than 50 percent

of each campaign, and mean values for oxidation temperature, oxidation pressure, and ammonia-to-air ratio were within the corresponding AOC ranges.

Project Emissions

ClimeCo provided Project data for the entire reporting period which included two full campaigns, Campaigns 44 and 45.

RCE verified that the Project campaigns operated inside the established AOCs greater than 50 percent of the campaign, meeting the requirement in the Protocol. RCE also confirmed that the operating conditions during the Project campaigns are representative of AOCs by verifying that the mean values for oxidation temperature, oxidation pressure, and ammonia-to-air ratio are within the corresponding ranges defined for the AOCs for Campaigns 44 and 45.

During campaign 44, the tubing on the high side pressure line of the NAP's flow transmitter which provides the measured air flow rate to gauze parameter developed a leak. This resulted in a negative air flow rate and a calculated ammonia-to-air ratio of 1.00 from August 31, 2022 to September 7, 2022. ClimeCo requested a variance to use the campaign mean ammonia-to-air ratio for the days there was a leak in the flow transmitter tubing, in place of the hourly measured ammonia-to-air ratio values. This allows ClimeCo to calculate baseline emissions for this period using hourly CEMS values as rather than using the method described in section 5.2.2 of the Protocol for when actual average daily operating conditions for pressure, temperature, and ammonia-to-air ratio are outside of the allowable range.

The Reserve granted the variance on August 18, 2023 pursuant to the following conditions:

- The verifier confirms the campaign mean ammonia-to-air ratio was used for the approximately eight days over which there was a leak on the flow transmitter tubing
- The verifier confirms that the leak was discrete and was adequately fixed as stated by the project developer

RCE reviewed data used in the calculation of emission reductions and confirmed that the campaign mean ammonia-to-air ratio was used for the period over which there was a leak in the flow transmitter tubing. RCE also reviewed documentation from the plant that shows the leak was fixed. The verification team discussed the issue with plant personnel during the site visit who confirmed that it was a discrete issue.

RCE confirmed that $\text{HNO}_{3,\text{RP}}$ was less than $\text{HNO}_{3\text{max,scaled}}$ for Campaign 44. $\text{HNO}_{3,\text{RP}}$ was greater than $\text{HNO}_{3\text{max,scaled}}$ for Campaign 45. RCE verified that ClimeCo appropriately scaled the emission reductions according to equation 5.10 for that campaign. RCE also verified the total operating hours and their proper application in the calculations for both campaigns.

RCE determined that the emission reduction calculations followed the Protocol and found no material misstatements in the final Project GHG reductions calculations and results.

4.0 Verification Results

ClimeCo provided sufficient evidence and documentation of their emission reductions, data collection procedures, monitoring, and quality control procedures. The verification process focused on verifying the historical emissions, baseline emissions, and full campaign project emission reductions and the source data used by ClimeCo to quantify the emission reductions in accordance with the Protocol.

RCE issued corrective action requests, requests for additional documentation, and requests for clarification to complete the verification. The details of RCE's requests are documented in the List of Findings provided to the Reserve and ClimeCo.

The Project reported emission reductions of 203,691 metric tons of CO₂ equivalents as per the information provided in the calculation summary spreadsheets. During the final review, RCE identified no material misstatements in the data or emission reduction calculations. Table 5 defines the emission reductions verified for this reporting period.

5.0 Conclusion

RCE conducted a risk-based analysis of the Coffeyville NAP2 project assertion including a strategic review of the Project data and evidence. Based upon the processes and procedures and the evidence collected, RCE concludes that the Project emission reductions resulting from the destruction of N₂O during the reporting period August 31, 2022 through May 3, 2023 can be considered:

- In conformance with the Reserve's Nitric Acid Production Project Protocol Version 2.2 and the ISO 14064-3:2019 standard,
- Without Offset Material Misstatement, and
- Verified to a reasonable level of assurance.

The GHG statement is summarized in Table 5 below. While RCE confirmed the emission reduction calculations and the total emission reductions to be correct and within the materiality threshold, the values in Table 5 are summary data only with significant figures rounded for summary purposes in this report. Additionally, the actual campaign start and end dates are reflected but maintenance periods between campaigns are included in the reporting period to ensure contiguous reporting.

Table 5 - Emission Reductions Verified for August 31, 2022 to May 3, 2023 by Campaign

Campaign Start & End Dates	Emission Reductions CO ₂ e (metric tons)
08/31/2022 – 01/11/2023	112,189
01/11/2023– 05/03/2023	91,502
Total	203,691

Table 6 - Emission Reductions Verified for August 31, 2022 to May 3, 2023 by Vintage

Vintage	Emission Reductions CO ₂ e (metric tons)
2022	101,525
2023	102,166
Total	203,691

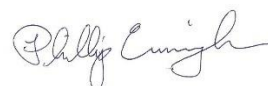
The verification opinion is attached as Appendix A.

Lead Verifier



Nina Pinette

Senior Internal Reviewer



Phillip Cunningham

Appendix A: Verification Opinion

Climate Action Reserve ("Reserve") Project Verification Statement ("Verification Statement")

Project ID: CAR1335

Project Name: Coffeyville NAP2

Name of Verification Body: Ruby Canyon Environmental, Inc.

Date Verification Report Issued: November 22, 2023

Emission Reductions/Removals Generated by Project:

Vintage Year 2022 Reductions/Removals (mtCO₂e) 101,525

Vintage Year 2023 Reductions/Removals (mtCO₂e) 102,166

Vintage Year _____ Reductions/Removals (mtCO₂e) _____

Vintage Year _____ Reductions/Removals (mtCO₂e) _____

Vintage Year _____ Reductions/Removals (mtCO₂e) _____

Vintage Year _____ Reductions/Removals (mtCO₂e) _____

Verification Statement:

This is to state that, for the verification period from August 31, 2022 [beginning Month, Day, Year] to May 3, 2023 [ending Month, Day, Year], ClimeCo Corp MCK NAP2, LLC's (the "Project Developer¹") project emission reductions/removals listed above for the aforementioned project:

☒ have been verified without qualification

☐ are unable to be verified

with reasonable assurance according to the Reserve's Nitric Acid Production [type of project] Project Protocol Version 2.2, Reserve Offset Program Manual, Verification Program Manual and all of the requirements of the Reserve program. In the case that the emission/reductions removals have been verified, the Project Developer has signed the applicable Reserve attestations for the GHG emission reductions/removals for which Climate Reserve Tonnes are to be issued.

Attestation

Lead Verifier: In signing this Verification Statement, I certify that the information contained herein is true, accurate and complete.



Lead Verifier, Signature

Nina Pinette

Print Name

November 22, 2023

Date

Senior Internal Reviewer: In signing this Verification Statement, I certify that the information contained herein is true, accurate and complete. I attest that I was not involved in the verification services documented in this Verification Statement, but have conducted an independent review of the verification services and findings of the verification team and concur with this Verification Statement.



Senior Internal Reviewer, Signature

Phillip Cunningham

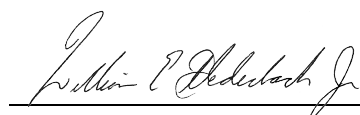
Print Name

November 22, 2023

Date

Authorization

I authorize the above-named verification body to submit this Verification Statement to the Climate Action Reserve on behalf of the Project Developer. I am a duly authorized signatory for my organization and have the legal authority to bind the Project Developer.



Project Developer, Signature

William E. Flederbach

Print Name

November 22, 2023

Date

¹ For the purposes of this Verification Statement, Project Developer includes: Project Operators (under the Forest Protocol), Project Owners (under the Grassland Protocol, Canada Grassland Protocol, Nitrogen Management Protocol, and Soil Enrichment Protocol), and Project Developers under all other protocols.