Data Intake Processing and Verification Report

[Draft - In Progress]

Background Information

- Original Dataset Name:
 - NOAA Global Greenhouse Gas Reference Network Continuous Insitu
 Measurements of CO₂ CH₄, and CO at Global Background Sites, 1973-Present
 - Earth System Research Laboratory Carbon Cycle and Greenhouse Gases Group Continuous Measurements of CO2, CO, and CH4 from Tall Towers, 1992-Present
 - NOAA Global Greenhouse Gas Reference Network Flask-Air Sample Measurements of CO₂, CH₄, CO, N₂O, H₂, SF₆ and isotopic ratios at Global and Regional Background Sites, 1967-Present
 - NOAA Global Greenhouse Gas Reference Network Flask-Air PFP Sample Measurements of CO2, CH4, CO, N2O, H2, SF6 and isotopic ratios of carbon and oxygen at Tall Tower and other Continental Surface Sites, 2005-Present
- **GHG Center Dataset Title:** Atmospheric Methane Concentrations from NOAA Global Monitoring Laboratory

Dataset Provider: NOAA
Date Obtained: April 2024
Location Obtained From:

- https://gml.noaa.gov/aftp/data/greenhouse_gases/ch4/in-situ/surface/ch4_surface
 e-insitu_ccgg_text.zip
- https://gml.noaa.gov/aftp/data/greenhouse_gases/ch4/in-situ/tower/ch4_tower-ins itu_ccgg_text.zip
- https://gml.noaa.gov/aftp/data/greenhouse_gases/ch4/flask/surface/ch4_surface-flask_ccgg_text.zip (event.txt files only)
- https://gml.noaa.gov/aftp/data/greenhouse_gases/ch4/pfp/surface/ch4_surface-pfp_ccgg_text.zip (event.txt files only)
- Data Location in GHG Center: noaa-gggrn-ch4-concentrations
- Data POC(s): Dr. John Miller, Dr. Arlyn Andrews
- Dataset File Type(s): Text (.txt)
- Projection (if different from WGS84): N/A

Data Intake Process

https://us-ghg-center.github.io/ghgc-docs/data_workflow/noaa-insitu_Data_Flow.html

Confirmation of Successful Data Transfer & Processing

All data are read directly from NOAA's data repository

(https://gml.noaa.gov/aftp/data/greenhouse_gases/ch4). Due to the shortness of record, the

following Surface PFP sites (<u>pfp/surface/ch4_surface-pfp_ccgg_text</u>) have been excluded: LAC, INX, BWD, NEB, NWB, TMD, SPF, KLM, MKO, MLO, HFM.

For the tower data (<u>in-situ/tower/ch4_tower-insitu_ccgg_text</u>), hourly measurements were aggregated into daily and monthly averages for display in the US GHG Center. Validation for the hourly to daily & monthly averages are shown below:

Summary

- We are confident that the display of data in the GHG Center is correct
- There were no problems identified in the data
- Link to Data Usage Notebook
- Link to US GHG Center Data Catalog overview page

Report Completed on: 4/26/2024

MSFC POC for questions: <u>Deborah Smith</u>, <u>Siddharth Chaudhary</u>