

AQRP Monthly Technical Report

PROJECT TITLE	A Next Generation Modelling System for Estimating Texas Biogenic VOC Emissions	PROJECT #	16-011
PROJECT PARTICIPANTS	Ramboll Environ Alex Guenther	DATE SUBMITTED	02/28/2017
REPORTING PERIOD	From: February 1, 2017 To: February 28, 2017	REPORT #	5

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task

Task 1: Development and Application of a Transparent Approach for Estimating BVOC Emission Factor Distributions

Ramboll Environ completed a draft BVOC emission factor database system and prepared a detailed Readme file that provides a list of required packages and information on how to install them and use the BVOC database system. Dr. Guenther began review and testing of the draft database system.

Task 2: Emission Factor Development

Dr. Guenther compiled above canopy flux measurements from aircraft and tower flux studies and integrated them into the emission measurement database. Emission factors used in MEGAN2.1 and BEIS for the Texas region were assessed and compared with other data in the emission factor database to initiate the process of reconciling various observations and emission factor data.

Task 3: Development of MEGAN3

Dr. Guenther and Ramboll Environ collaborated on the MEGAN3 programming and overall structure. Ramboll Environ prepared a draft package of MEGAN3 source code with job scripts, input/output data, log files, etc. Dr. Guenther examined the structure of the draft MEGAN3 code and tested the code. Additional modifications (canopy environment model improvements, update of existing parameters, and clarification of existing code) were implemented.

Task 4: MEGAN Evaluation and Sensitivity Study

Task 4 has not yet been initiated.

Task 5: Project Management and Reporting

This task is ongoing.

Dr. Guenther began compiling information for the final report.

Preliminary Analysis

None.

Data Collected

None.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None.

Goals and Anticipated Issues for the Succeeding Reporting Period

Continue development of BVOC database and MEGAN3 code.

Detailed Analysis of the Progress of the Task Order to Date

None.

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

Yes No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQRP Project Manager and your TCEQ Liaison?

Yes No

Do you have any bibliographic publications related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

Yes No

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQRP Workshop).

Yes No

Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

Yes No

Submitted to AQRP by Sue Kemball-Cook

Principal Investigator Sue Kemball-Cook