

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

PAVEMENT COATINGS TECHNOLOGY )  
COUNCIL, )

Plaintiff, )

v. )

No. 1:14-CV-01200 (KBJ)

UNITED STATES GEOLOGICAL )  
SURVEY, )

Defendant. )

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**DECLARATION OF BARBARA J. MAHLER**

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I, Barbara J. Mahler, declare as follows:

1. I am a Research Hydrologist in the office of the U.S. Geological Survey (USGS) Texas Water Science Center, in Austin, Texas. I was hired as a Hydrologist by the Texas Water Science Center (TxWSC) in 1997, and was promoted to Research Hydrologist in 1999. Since my hiring in 1997 the majority of my time has been spent working for the USGS National Water Quality Assessment (NAWQA) Program, primarily with the Contaminant Trends Team (CTT) based at the Texas Water Science Center.

2. In my capacity as a Research Hydrologist, my responsibilities include designing, managing, and carrying out studies of water and sediment quality; developing methodologies and approaches to identify potential sources of contamination; managing and interpreting data; authoring USGS reports and scientific journal articles; giving oral and poster presentations at scientific meetings, to other agencies, to elected officials, and to the public; providing information on request to colleagues, to other agencies, to the media, and to the public;

overseeing interns; doing sample preparation and limited laboratory analyses; reviewing and critiquing documents within and external to the USGS; serving as a consultant to scientists within and outside of the USGS; serving on university students' Masters and Doctoral committees.

3. As part of my research for the TxWSC and for the NAWQA program, I investigate environmental contamination, including by polycyclic aromatic hydrocarbons (PAHs), and identify sources of potential contamination, including coal-tar-sealants. This has been a focus of my research since I was hired in 1997, and since 2003 has included investigation of coal-tar-sealants. This research has been conducted primarily by USGS scientists at the TxWSC, although we have collaborated with USGS scientists in other Water Science Centers. The research on PAHs and coal-tar-sealants has resulted in numerous publications that I have co-authored: four USGS reports or fact sheets, 13 articles in peer-reviewed scientific journals, and four Responses to Comments on those articles. All of these publications have gone through the USGS procedure (since 2006 called Fundamental Science Practices) for review and approval.

4. My job responsibilities include involvement in professional organizations, peer review of non-USGS articles, and serving on dissertation committees.

5. **Professional organizations.** As part of my professional responsibilities, I belong to several professional organizations, such as SETAC. SETAC is the Society of Environmental Toxicology and Chemistry ([www.setac.org](http://www.setac.org)). Per the organization's website, SETAC is a not-for-profit, global professional organization comprising some 6,000 individual members and institutions from academia, business and government. Since 1979, the Society has provided a forum where scientists, managers and other professionals exchange information and

ideas on the study, analysis and solution of environmental problems, the management and regulation of natural resources, research and development, and environmental education. I have attended many of the SETAC annual meetings, at which I have given oral or poster presentations. I am not involved as a board member or as a decision-making party in SETAC. I (Barbara) have, in the past, chaired a session on PAHs at the annual SETAC meeting (2011, 2013, 2014), but recused myself, deferring to my co-chairs, in deciding whether submittals from PCTC or PCTC-funded consultants should be given oral vs poster presentation slots.

6. Any abstract that I submit for presentation at a professional meeting, such as SETAC, goes through the standard USGS review process for meeting abstracts: supervisory review, two USGS colleague reviews, Water Science Center Reports Specialist review and approval (proxy for WSC Director's approval).

7. **Peer Review of non-USGS articles.** As part of my professional responsibilities, I regularly (on average once a month) review manuscripts for scientific journals, and I sometimes review manuscripts for colleagues within or outside of the USGS prior to submittal for publication (a few times a year). For example, in Nov. 2015 I reviewed an article for the journal Applied Geochemistry. As is standard practice, my identity was withheld from the author and available only to those at the journal handling the review. The review guidelines state that, as a reviewer, I must "treat the materials received as confidential documents", and that I "must not share information about the review with anyone without the permission from the editors and authors." On the strength of the reviews, the article ultimately was not accepted for publication in Applied Geochemistry. I was not required to pay to access the materials necessary for the review, nor did I receive any compensation, monetary or otherwise, for doing the review.

8. **Dissertation advice.** Occasionally (every 2 years or so), I am requested to serve as a member of a graduate student committee. This is a small committee (typically 4 to 5 people) made up of academic faculty and scientific professionals, who review the student's research, provide guidance, and ultimately decide whether the student should receive his or her degree. As part of those responsibilities, I review and comment on a draft of the student's thesis. Although my service on graduate student committees is encouraged as part of my professional responsibilities, the final thesis is neither reviewed nor approved by USGS, but rather the university issuing the degree. Dr. VanMetre and I were members of Yaning Yang's doctoral committee and reviewed her draft thesis in that capacity.

9. I have knowledge of Plaintiff's FOIA request because Plaintiff requested documents related to coal-tar sealants. As detailed further below, I searched for, reviewed, and provided responsive documents to the person processing the FOIA Request. I also conducted an additional review of documents as a result. Many of the records in this case are from my official files.

10. Because of the nature of my official duties, I am familiar with the procedures followed in responding to FOIA requests made to USGS including the request by the plaintiff in this case. The statements I make in this declaration are based on my review of the official files and records of USGS, my personal knowledge, and/or information acquired by me through the performance of my official duties.

SEARCH FOR DOCUMENTS RESPONSIVE TO PLAINTIFF'S REQUEST

11. On or about April, 2010, the USGS received the FOIA request. In response, I searched through all relevant e-mail files, digital files in both a personal and shared directory, and hard copy material.

12. **Shared Directory.** The NAWQA CTT stores their files in an internal shared directory that is accessible to all members of the CTT. The directory is primarily shared by Pete VanMetre, Barbara Mahler, and Jennifer Wilson; others have or have had access at various times (e.g., MaryLynn Musgrove, Alyse Briody, Mohan Rao, Tom Burley). It contains folders for data, photos, draft publications, presentations, copies of others' (within and external to the USGS) publications and presentations, and other information stored or generated as part of the CTT's research. At the top level it currently has 55 folders, which each have within them multiple subfolders. Some users have their own folder within the directory, but neither Dr. VanMetre nor I have our own folder.

13. On or about August 25, 2011, through May 25, 2012, I searched the shared directory six times for documents responsive to this request. I searched by looking at all documents in all folders that I knew, from personal knowledge, might possibly contain a responsive document. Similarly, I searched for e-mails 12 times in any of my e-mail folders that might possibly contain responsive material.

14. **Other locations.** Each employee that is part of the CTT has a personal directory on the USGS network (accessible only by that employee and those in IT with "administrator" access). I searched my directory on six occasions for responsive documents by looking through all folders that, by personal knowledge, might potentially contain responsive material. Most of

the CTT's paper files were handled by Jennifer Wilson, and she searched those. They include field notes and paper records of sample processing and tracking.

15. Documents relating to external professional organizations, such as SETAC, are stored either on the shared drive under a sub-folder for SETAC by year under "Meetings" (e.g., Meetings/2011/SETAC) or on my personal drive, similarly under Meetings and by year. I searched for and provided documents relating to professional organizations within the shared directory and within my personal folder, regardless of whether the final document or review process was endorsed, approved, or published by USGS.

#### REVIEW OF RESPONSIVE DOCUMENTS

16. From these searches, I identified potentially responsive documents, which were then further reviewed by Judy Cearley. After litigation commenced, I also re-reviewed many of these files in conjunction with Mr. Brian May and Peter VanMetre.

17. **"Shared Directory" documents.** Some of the files obtained from the shared directory do not contain clear notes on authorship in either the text or metadata. In addition, in some cases, these documents have "track changes" edits and the order of those isn't clear, or the document might have been edited more than once by one or more people. This ambiguity is due, in part, to the configuration of our software, which will occasionally label comments from either Peter VanMetre or myself simply as "GE" (short for "government employee"). For these drafts, I know that the author either is either VanMetre or me: It is not uncommon for one of us to generate a document (text or figure file) and both of us to work on it (sometimes more than once) before saving it with a new name, so the record is co-authored by both of us. I am also confident that, of the records I reviewed, comments labeled with "GE" (government employee) are either

by VanMetre or me. These files are labeled in the Vaughn Index with “shared directory” in the “to” field, the “from” field, or both.

18. **“Raw Data.”** When we collect data sample for analysis of PAHs (or other contaminant), the sample is analyzed by the USGS National Water Quality Laboratory (NWQL), where the results (data) undergo detailed Quality Control (QC). Only when the data have undergone QC at the NWQL are they released to USGS scientists (including me) and made available to the public via the NWIS database and website. At that point these “raw data” are considered final. General QC procedures at the NWQL are detailed in “U.S. Geological Survey National Water Quality Laboratory quality assurance and quality control” ([http://wwwnwql.cr.usgs.gov/qas/QCM\\_v1.0.pdf](http://wwwnwql.cr.usgs.gov/qas/QCM_v1.0.pdf)). Specifically, for PAH QC, measured environmental concentrations are evaluated in the context of blank, set spikes, and standards in a procedure that is outlined in the Standard Operating Procedure (SOP) for the appropriate laboratory method (available internally on request).

19. To the best of my knowledge, all raw data have been released to the requester in response to the FOIA. They have been released in the form of laboratory reports and data files, and the majority of the raw data is also available on NWIS web, the publicly available USGS database. Many of the data also are available in Supporting Information sections of journal articles or in cited USGS data reports written with the purpose of making those data available. In the data exploration spreadsheets released with partial redactions, the raw data are not redacted.

20. **Exploratory analysis.** Some of the files listed in the Vaughn index are categorized as “exploratory analysis.” Some of these files contain the term “ratios” in either the description or the filename. This refers to a process called “ratio analysis.” In this process, we

use raw data (which has been released), and evaluate whether ratios of different combinations of those data create a pattern that aids us in interpreting a potential contaminant source. This is deliberative because it is, in a sense, a creative process that might lead to some dead ends or might lead to some important insights. It is not dissimilar to a writer trying out different combinations of words or paragraphs in a draft document in an effort to create the most logical sequence.

JUSTIFICATION FOR WITHHOLDING RESPONSIVE DOCUMENTS  
UNDER EXEMPTION 6 OF THE FOIA

21. In April–July 2008, we collected samples of house dust from 23 residences. We solicited volunteers for the study through door hangers and e-mail list-serves. For each residence, we asked the residents a list of questions that we filled into a form; questions included things like whether they burned candles or incense, whether they had a gas or electric stove, how frequently they went in and out of the house, and whether they used their fireplace (if there was one). There was an expectation of confidentiality when we collected these data, that they would be used only for the purposes of this study and that the identity of the participant would not be revealed. The sample ID for the samples from each residence were coded as a shortened form of the street address, therefore release of the sample ID might provide information on the resident's address. The site ID for each residence, per USGS protocol, is a combination of the latitude and longitude of the residence, and therefore might provide information on the resident's address.



Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct, to the best of my knowledge and belief.

Executed this 2nd day of February, 2016.

A handwritten signature in black ink, appearing to read 'B. Mahler', written over a horizontal line.

Barbara J. Mahler  
Research Hydrologist  
U.S. Geological Survey

