

**From:** "Eganhouse, Robert" <eganhous@usgs.gov>  
**Subject:** **Re: Montrose case sediment cores**  
**Date:** March 14, 2013 2:58:46 AM PDT  
**To:** Greg Baker - NOAA Federal <greg.baker@noaa.gov>  
**Cc:** bedwards <bedwards@usgs.gov>, "Lee, Homa" <hjlee@usgs.gov>, Carolyn Degnan <cdegan@usgs.gov>, "Torresan, Michael" <mtorresan@usgs.gov>

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Thank you, Greg (*et al.*), for all your efforts to find these samples. That is truly a shame, and I must confess, I am very disappointed. I wish that some of the investigators (like me) had been offered an opportunity to acquire some of these cores, but c'est la vie.

Bob

On Wed, Mar 13, 2013 at 5:45 PM, Greg Baker - NOAA Federal <[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)> wrote:  
Unfortunately the frozen sediment sample that Bob asked about was discarded some period of time after the conclusion of the Montrose litigation in 2000.  
See Ann Bailey's msg below, the sediment samples including the one ID'd by Bob appear on a list of samples we had archived in Seattle and that were disposed of. Sorry Bob.

Greg Baker

----- Forwarded message -----

**From:** **Ann Bailey** <[abailey@ecochem.net](mailto:abailey@ecochem.net)>  
**Date:** Wed, Mar 13, 2013 at 1:19 PM  
**Subject:** RE: Montrose case sediment cores  
**To:** Greg Baker - NOAA Federal <[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)>

Greg,

Unfortunately all sediment samples were discarded (per request from NOAA). We had to discard some as "hazardous waste" because of the high total DDT concentrations. Just FYI I'm attaching a spreadsheet that we used to evaluate/summarize sample concentrations...it has the sediment sample on there that Eganhouse was looking for...

Also, just FYI I'm attaching a list of what's in the archive now – all are tissue sample.

Let me know if you'd like more information. I believe the hardcopy files are at EcoChem's offsite archive location...

Sorry for the bad news.

Ann

**From:** Greg Baker - NOAA Federal [mailto:[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)]  
**Sent:** Tuesday, March 12, 2013 7:41 AM  
**To:** Ann Bailey  
**Subject:** Fwd: Montrose case sediment cores

Hi Ann, here's some more detail about the section of a DDT core that Bob Eganhouse is looking for.

USGS reps here have been looking, but

It may be that USGS doesn't have the particular frozen archived sample he describes below. Any way of determining whether NOAA archived it in Seattle during the Montrose case, and whether it was later discarded?

Thanks

Greg B

----- Forwarded message -----

**From:** Eganhouse, Robert <[eganhous@usgs.gov](mailto:eganhous@usgs.gov)>  
**Date:** Tue, Mar 12, 2013 at 4:42 AM  
**Subject:** Re: Montrose case sediment cores  
**To:** "Torresan, Michael" <[mtorresan@usgs.gov](mailto:mtorresan@usgs.gov)>  
**Cc:** Carolyn Degnan <[cdegnan@usgs.gov](mailto:cdegnan@usgs.gov)>, Greg Baker - NOAA Federal <[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)>, infobank <[infobank@octopus.wr.usgs.gov](mailto:infobank@octopus.wr.usgs.gov)>, Brian Edwards <[brian@octopus.wr.usgs.gov](mailto:brian@octopus.wr.usgs.gov)>, Homa Lee <[hjlee@usgs.gov](mailto:hjlee@usgs.gov)>, Cathy Frazee <[cathynguy@yahoo.com](mailto:cathynguy@yahoo.com)>

Hi Mike *et al.*,

I am replying to the email string in the hope that I can clarify rather than further confuse the situation.

I am looking for the **DDT** subcore for the 171B1 box core (probably labeled 171-B1-DDT). This subcore (and all of the other **DDT** subcores) were shipped to AD Little (ADL) by the USGS (Homa) after completion of the '92 cruise **in a frozen state** in their polycarbonate liners. AD Little then extruded the frozen subcores and cut them up into sections. I know this because I loaned ADL the extruder they used for this purpose. When ADL had finished doing that, they

analyzed the sections of the **DDT subcores** for DDTs, PCBs and total organic carbon. In a couple of cases, I requested subcores from ADL and received sub-samples of these sections from them (homogenized first, of course). These sediment samples, examples of which include 147B3-DDT and 124B1-DDT, were used for our work on the Montrose case. These sub-samples are still in our freezers here in Reston to this day. (Note: the sections for all of the DDT suffix subcores were to be kept frozen by ADL continuously).

In the case of 171B1-DDT subcore, I did not make such a request. Consequently, I would expect that the sections of this subcore, whose DDT and PCB contents were measured by AD Little and reported by Homa in his Expert Report, were maintained with all of the other "DDT" subcores in their frozen state by ADL for some period while the Montrose litigation continued. These sections were to be maintained at -20 C in glass jars enclosed with Teflon-lined caps, **not in a D-tube**. The subcores in the D-tubes were, to my recollection, used for strat/sed purposes (the so-called **SS** subcore) and they were kept refrigerated, not frozen, as two halves (at the USGS facility in Menlo Park). I will be very surprised if the USGS received the frozen subcore sections used by ADL for the DDT and PCB analyses and maintained them in a frozen state following analysis by ADL, but that is exactly what I am looking for (*viz.*, 171B1-**DDT**, cut into 2-cm sections and stored frozen in glass jars). ADL either kept the **DDT** subcores or shipped them somewhere else at some time during or after the litigation. That 'somewhere else' is what is in question.

I hope this helps somewhat, Mike, *et al.* Wherever the boxes are that contain the sections of the **DDT** subcores of the box cores collected on the '92 cruise, we will find the 171B1-DDT subcore sections (unless that particular subcore was sent to someone else for follow-up studies).

Please keep searching and thank you very much for your help. Analysis of this subcore in our laboratory has the potential to yield very significant results for EPA's remediation efforts and I will be very disappointed if we cannot locate the subcore sections or that have been lost or discarded. All we can do is try.

Bob

On Mon, Mar 11, 2013 at 6:53 PM, Torresan, Michael <[mtorresan@usgs.gov](mailto:mtorresan@usgs.gov)> wrote:

All, the core Carolyn found is accessible if Bob wants to come out to sample it. I will try to find

it this week or next to verify we have a working and archive half. Cathy, if you have some time maybe you can let me know where to look in Area B and if you know where the slabs are..

If there are other sub-cores from B171 we may find them there. But be advised that we did not receive all the subcores as some may have been taken by other folks who participated in the Palos Verdes Study. Also, with respect to the box core slabs, they may be in a larger tub somewhere in a large plastic palletized container in 1020 O'Brien Drive. Core Slabs don't fit in the shelves where we store cores. Maybe when Cathy Frazee gets back on contract she can look for them. There is also a chance we don't have any/all the slabs.

Mike

Mike Torresan

U.S. Geological Survey  
Pacific Coastal and Marine Science Center  
400 Natural Bridges Drive  
Santa Cruz, CA 95060  
Ph: [831-460-7425](tel:831-460-7425)

Cell: [650-465-7715](tel:650-465-7715)  
<http://walrus.wr.usgs.gov>

On Mon, Mar 11, 2013 at 2:35 PM, Carolyn Degnan <[cdegnan@usgs.gov](mailto:cdegnan@usgs.gov)> wrote:

Hi Greg,

I found that, during field activity F-5-92-SC <<http://walrus.wr.usgs.gov/infobank/f/f592sc/html/f-5-92-sc.meta.htm>>, it was noted, in file <<http://walrus.wr.usgs.gov/infobank/f/f592sc/samp/f-5-92-sc.onoff.cores.boxcore>>, that there was a boxcore recovery on day-of-year 194, at 09:49, of sample 171-B1. The chief scientists of that field activity are Homa Lee and Brian Edwards.

InfoBank's Analog Materials list <<http://walrus.wr.usgs.gov/infobank/f/f592sc/html/f-5-92-sc.container.html>>, tells me that we have D-tube archive half (barcode # 171852) and working half (barcode # 171851) of "CORE-171 B1" in the refrigerator storage at 1020 O'Brien. Cathy Frazee's latest inventory tells me they are now in area B.

InfoBank also noted "BX CORE SLABS" with barcode #s 181681, 181682, 181684, and 181685. Unfortunately, I do not find those barcode numbers in Cathy's last inventory. I am copying Cathy and Mike Torresan because they are more actively working with the samples in storage.

Note to Cathy and Mike: It would be good for InfoBank to know the locations of those "BX CORE SLABS".

- Carolyn

On Mar 11, 2013, at 1:47 PM, Greg Baker - NOAA Federal wrote:

Hi Carolyn,

Please see the msg below from Bob Eganhouse, do you know if USGS has these sediment cores stored?

I've initiated a request to the contractor who managed our archive of samples during the Montrose case (up in Seattle), she indicated that she thought they were transferred to Homa Lee's custody.

Don Woodrow, my office mate here, suggested that you may be a good point of contact

Thanks!

Greg B

----- Forwarded message -----

From: **Eganhouse, Robert** <[eganhous@usgs.gov](mailto:eganhous@usgs.gov)>  
Date: Mon, Mar 11, 2013 at 8:23 AM  
Subject: Re: Montrose case sediment cores  
To: Greg Baker - NOAA Federal <[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)>

Thank you very much, Greg. I thought your name sounded familiar, but a lot of water has passed under the bridge.

Take care,

Bob

On Mon, Mar 11, 2013 at 9:51 AM, Greg Baker - NOAA Federal <[greg.baker@noaa.gov](mailto:greg.baker@noaa.gov)> wrote:

Hi Bob -

It's been a long time but I remember meeting you at a Montrose-related meeting many years ago, probably at the USGS Menlo Park campus with Marlene Noble, Homa Lee, and others present.

I'll look into whether NOAA still has the 1992 box core samples - my first bet is to contact our subcontractor, EcoChem, up in Seattle WA. Most of the samples / evidence collected in support of the case were stored in Seattle.

Greg B

On Mon, Mar 11, 2013 at 6:27 AM, Eganhouse, Robert <[eganhous@usgs.gov](mailto:eganhous@usgs.gov)> wrote:

Hi Mr. Baker,

Allow me to introduce myself. My name is Bob Eganhouse. I work for the USGS in Reston, VA (<https://profile.usgs.gov/eganhous>). I was deeply involved in the USGS NRDA investigations funded by NOAA in support of the so-called Montrose case (1992-2000 roughly) for which I conducted a variety of studies related to the geochemistry of DDT in Palos Verdes Shelf (PVS) sediments.

As fate would have it, about 5 years after the settlement in 2000, I became re-engaged in research at the site. Our work at that time was in support of EPA's efforts at remediation. We first conducted a study (late 2005-2007) of what was known about DDE reductive dechlorination processes and rates in PVS sediments. This involved a synthesis and analysis of existing data to that point in time as well as a field study of our own (core comparison). For your interest, you can download the report that was issued from that study at....

<http://pubs.usgs.gov/of/2007/1362/>.

Papers that came out of that work can be found at...

<http://pubs.acs.org/doi/abs/10.1021/es7029619?prevSearch=eganhous&searchHistoryKey=>

and

<http://pubs.acs.org/doi/abs/10.1021/es801132y>

Subsequently, EPA asked me to coordinate and participate in a study of the factors controlling DDE dechlorination rates. This follow-up project, which has taken 4.5+ years to date, is now in its final stages.

The reason I am contacting you is that I would like to determine if any of the sediment cores

collected as part of the 1992 USGS box coring are being stored somewhere, and, if so, whether I could gain access to a particular core for further analyses. The box core in question is named **171B1**. It was taken at USGS station **564** in July 1992 and several subcores (identified by suffixes to the core name) were collected from the box core. One of these subcores (*viz.*, 171B1-**DDT**) is the one I need.

If I can locate and get a subsample of this core (all sections), our analyses will provide the USEPA reductive dechlorination rate estimates for a third location on the Palos Verdes Shelf. This will significantly increase our knowledge of the site and enhance EPA's ability to plan remediation activities and predict the course and rate of natural attenuation.

Please contact me either by phone or email at your earliest convenience.

Thank you and ...

Best regards,

Bob

"vincit qui patitur"

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Robert P. Eganhouse

U.S. Geological Survey

12201 Sunrise Valley Drive

MS 432

Reston, Virginia 20192

Tel.: [703-648-5879](tel:703-648-5879)

FAX: [703-648-5832](tel:703-648-5832)

Email: [eganhous@usgs.gov](mailto:eganhous@usgs.gov)

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Best regards,

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Best regards,

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Robert P. Eganhouse  
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MS 432  
Reston, Virginia 20192  
Tel.: 703-648-5879  
FAX: 703-648-5832  
Email: [eganhous@usgs.gov](mailto:eganhous@usgs.gov)