

**TNI Chemistry FoPT Subcommittee
Meeting Summary
March 30, 2010**

1. Roll call and Meeting Minutes:

Co-Chair Carl Kircher called the Chemistry FoPT Subcommittee to order on March 30, 2010, at 12:07pm EST. Attendance is recorded in Attachment A. There were 7 members present on the call today. Lance Boynton also joined the call.

The minutes from the March 23, 2009 meeting were reviewed. Stephen made a motion to approve the minutes and Jim seconded this motion. The motion was unanimously approved. The minutes will be forwarded to the TNI webmaster for posting.

Jeff provided additional information for the March 9th minutes and they will be considered at the next meeting.

2. SCW FoPT Update

Carl asked if everyone received the table Jeff Lowry sent last week - Carl went through each analyte and did a regression analysis in Excel if there were at least 5 studies.

The subcommittee had previously reviewed 4 analytes – Bromide and Chloride correlation coefficient passed. There were only 2 PT providers that provided data for these analytes. Bromide and Chloride could work with an assigned value. Nitrate and Flouride did not pass when Carl examined the correlation coefficient. These warrant the use of a participant mean.

Carl asked the subcommittee if any of these values need to be reconsidered based on the information he presented.

The gravimetric value is used to multiply the c and d factors.

Steve motioned for an alternative limit setting procedure that looks at a matrix specific recovery factor along with the assigned value vs. participant mean with c & d limits. The motion was seconded by Jim.

Discussion:

Stephen provided a spreadsheet to a few subcommittee members that contains data to support his motion. This was sent to the entire subcommittee during the call (Attachment B.) The data were discussed.

Chuck noted that the methods behave differently with different soils. As an example from the data provided by Steve, he observed that in two studies from the same Provider for sulfate with approximately the same number of participants the mean recovery for one study was 97% and in a second study it was 59%. Steve had proposed using limits of 49 – 121% for both studies. Using this schema, Chuck would guess that 30% of the labs would fail the study with the mean recovery of 59%. Stephen suggested the matrix specific recovery factor could be increased.

Carl called for a vote. There were more than 2 participants who voted No – so the motion did not pass.

Sulfate

The current limits are 25 – 2000 mg/kg. The data shows 52.6 – 550 mg/kg. Wibby has run studies higher than the 560 mg/kg without any problems.

Chuck motioned to move Sulfate to the Accreditation Table with a concentration of 25 – 2000 mg/kg. Limits: Linear regression equation with the c & d factors as presented in the table distributed by Jeff on March 3, 2010 (c - 0.1354 d – 5.1265.) The motion was seconded by Eric. The motion was unanimously approved by the subcommittee members on the call (Note: Stephen had to leave the call, so 6 voting members were present for the remainder of the call.)

Orthophosphate

Carl originally suggested eliminating this as a PT. The data shows some problems. Is it a problem to eliminate this? NY does not actually make a PT for this. Eric is not aware of any states that press for this analyte in soil. Stacie confirmed. Wibby will probably leave it in the PT, but

Eric motioned that the subcommittee not move orthophosphate to the Accreditation Table. The motion was seconded by Stacie. No discussion. The motion passed unanimously.

Total Phosphorus

The current range is 100 – 5000 mg/kg. The study concentration was 369 – 1310 mg/kg. Wibby has run studies up to 2000 or 3000 mg/kg. The PTRL at 300 would be 30 mg/kg.

Chuck motioned that Total Phosphate be moved over from the Experimental table to the accreditation table at a concentration range of 300-3000 mg/kg. A PTRL of 30mg/kg. Limits: Linear regression equation with the c & d factors as presented in the table distributed by Jeff on March 3, 2010 (c - 0.2208 d – 29.9538.) The motion was seconded by Dan Tholan and unanimously approved.

Total Kjeldahl Nitrogen

The current concentration range is 100 – 5000 mg/kg. The study range was 443 – 1810 mg/kg. Eric suggested either 300 – 3000 mg/kg or 500 -5000 mg/kg.

Eric motioned that TKN be moved from the Experimental Table to the Accreditation Table at a concentration range of 400 -4000 mg/kg. Limits: Linear regression equation with the c & d factors as presented in the table distributed by Jeff on March 3, 2010 (c - 0.1361 d – 21.2081.) Chuck seconded the motion and it was unanimously approved.

Ammonia

The current range is 1000 – 5000 mg/kg. The study range was 156 – 981 mg/kg. The c & d factors give a range of +/- 50%. It is narrower at the higher range –around +/- 40%. This analyte is fairly stable.

Eric made a motion that Ammonia be moved from the Experimental Table to the Accreditation Table at a concentration range of 300 – 3000 mg/kg. Limits: Linear regression equation with the c & d factors as presented in the table distributed by Jeff on March 3, 2010 (c - 0.0931 d – 39.026.) The motion was seconded by Chuck and unanimously approved.

Total Organic Carbon

This is an important analyte for the soil matrix, but the available PT data indicates wide standard deviations and acceptance limits, even with the use of Participant Mean in place of Assigned Value. Chuck explained that the principal reason was the disparate methods that laboratories use to determine TOC. For example, persulfate/UV oxidation works well with KHP (the most common standard used to calibrate TOC analyzers) but does not work well with more complicated forms of organic carbon (such as buried deep in aromatic rings). Dan D. said that we can keep the FoPT but use this as an educational tools for NELAP ABs and laboratory assessors to evaluate the various TOC test methods. TOC Methods such as Walkley-Black and Lloyd-Kahn have much different analytical performance than combustion/NDIR methods. The consensus was thus to move the Experimental TOC FoPT to the accreditation Table with the acceptance limits unchanged at "Mean +/- 3 Standard Deviations." Eric offered that the applicable concentration range should be 3000-15000 mg/kg. Chuck made the motion for this FoPT, Eric seconded, passed unanimously.

The comment was made to fix a typographical error in Jeff Lowry's Excel SCM Table which has the lower concentration limit for TOC at 100 mg/kg (should be 1000 mg/kg).

4. New Items

- None.

5. Action Items

- Not reviewed.

6. Next Meeting

The next meeting of the Chemistry FoPT Subcommittee will be April 6, 2010, at 12PM EST.

Action Items are included in Attachment C and Attachment D includes a listing of reminders.

The meeting ended at 1:30 pm EST. (Motion – Jim, Second- Dan T. Unanimously approved.)

Attachment A

Participants TNI Chemistry FoPT Subcommittee

Members	Affiliation	Contact Information
Carl Kircher, Co-Chair Present	Florida DOH	904-791-1574 carl_kircher@doh.state.fl.us
Brian Boling, Co-Chair Absent	Oregon DEQ	Boling.Brian@deq.state.or.us
Amy Doupe Absent	Lancaster Laboratories, Inc.	717-656-2300 x1812 aldoupe@lancasterlabs.com
Jeff Lowry ab	ERA	303-431-8454 jlowry@eraqc.com
Chuck Wibby Present	Wibby Environmental	303-940 -0033 cwibby@wibby.com
Eric Smith Present	TestAmerica	615-726-0177 x1238 eric.smith@testamericainc.com
Dan Tholen Present	A2LA	231-929-1721 Tholen.dan@gmail.com
Stephen Arpie Present (left early)	Absolute Standards, Inc.	203-281-2917 stephenarpie@mac.com
Dan Dickinson Present	New York, DOH	518-485-5570 dmd15@health.state.ny.us
Stacey Fry Present	E.S. BABCOCK & Sons, Inc.	951-653-3351 x238 sfry@babcocklabs.com
Jim Present		860-947-2121 mousejr@nu.com
Ilona Taunton, Program Administrator Present (left 1:22 pm)	TNI	828-712-9242 tauntoni@msn.com

Attachment B

03/30/2010

Hello FOPT committee.

Attached is an excel workbook with 8 plots of Mean Recovery Vs. Assigned Value. It should only take 15 minutes to review.

In each case, a plot of the Mean Recovery (%) vs. Assigned Value (mg/Kg) is presented.

The source of the data is the same data the Jeff sent out last week.

The Process:

1. Copy out the data for each analyte and plot it.
2. I then calculated an Average, Min, Max.
3. Because these are soils and not every manufacturer has the same matrix, I then added a 10% Matrix Specific Recovery Factor (MSRF) to the Min and Max.
4. Finally, the Min and Max were adjusted for the 10% and 110% footnotes if applicable.

We could increase the 10% Matrix Specific Recovery Factor (MSRF) if the 10% is thought of being to tight. Fluoride was plotted with a single segment and a double segment for comparison.

Because this process is a change from our normal procedure, I thought the data would be useful for the committee to review.

Thank you for your cooperation.

Stephen

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Attachment C

Action Items – Chemistry FoPT Subcommittee

	Action Item	Who	Expected Completion	Actual Completion
13.	Prepare letter to ABs to find out their needs on analytes that may be under consideration for deletion. <i>(3/24/09 – It was determined that these tables are used by more than just ABs. This needs to be reconsidered.)</i>	TBD	TBD	
22.	Prepare for upcoming meetings by reviewing evaluation files that Jeff will send every 2 weeks.	All	Ongoing	
46	Re-evaluate experimental volatile halocarbons for fixed limits when the rest of the volatile halocarbons are evaluated for an NPW table update.	All	On-going	
54	Forward Final cover letter and NPW FoPT Table to PT Board for approval.	Carl	3/16/10	Complete
55	Forward current copy of the limit SOP to subcommittee members.	Ilona Eric	3/17/10	Complete
56	Propose alternative procedure for determining limits and looking at uncertainty. Send out to subcommittee before next meeting.	Stephen	3/21/10	Complete
57	Review March 9 th minutes and provide additional information requested in red.	Jeff All	3/30/10	
58	Review limits and concentrations for experimental analytes that have been updated by the subcommittee on the SCW FoPT table. Provide any recommended changes. Support reasons for the changes in writing to the subcommittee.	Stephen	3/26/10	

Attachment D

Backburner / Reminders – Chemistry FoPT Subcommittee

	Item	Meeting Reference	Comments
1	Review summary data to see if it supports a change in the acceptance criteria for DW analytes (For example, VOA, 30% instead of 20%). If data is supportive, Jeff Lowry will approach ELAB.	10-30-08	<p>3/10/09 - Jeff has approached ELAB. They would be happy to put it in a work group – and pass it along with a letter to EPA. We need to provide them with the data.</p> <p>2/23/10: Jeff will forward the VOA data. Jeff noted that the data supports the tighter limits. He will provide the information to ELAB and they will decide whether to approach EPA.</p>
3	Consider changing the lower limit for Vanadium on WP to 50 ug/L.	6-30-09	
4	Consider nomenclature differences between the analyte codes and the FoPT tables.	2-23-10	
5			