



**ENVIRONMENTAL
RESOURCE ASSOCIATES®**
The Industry Standard™

November 17, 2005

Josie Longoria
Guadalupe Blanco River Auth
933 E Court St
Seguin, TX 78155

Enclosed is your final report for ERA's WatR™ Supply Proficiency Testing (PT) Study, WS-110. Your final report includes an evaluation of all results submitted by your laboratory to ERA. Attached is a table listing which regulatory agencies have been sent a copy of your final results and the report type received by those agencies.

Data Evaluation Protocols: All analytes in the WS-110 PT study have been evaluated using the following tiered approach. If the analyte is listed in the National Environmental Laboratory Accreditation Conference (NELAC) PT Field of Testing list (June 2005), the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the NELAC FoPT tables. If the analyte is not included in the NELAC FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™ Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have well over three hundred years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be helpful in helping you work through your technical issues.

Thank you for your participation in ERA's WatR™ Supply Proficiency Testing Study, WS-110. If you have any questions, please contact myself, or Curtis Wood, Quality Assurance Director, at 1-800-372-0122.

Sincerely,

Shawn Kassner
Proficiency Testing Manager

attachments
smk



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Regulatory Agency	Agency Requested Report Type	Agency Lab ID	Contact
Texas	Complete Report	TX00010	Max Phillips



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In my role as ERA's Quality Assurance Director, I have independently reviewed all aspects of ERA's WatR™ Supply Proficiency Testing Study, WS-110, for compliance with all USEPA, NELAC, NIST NVLAP, and all state technical and program requirements in effect during this study, as well as those of our ISO 9001 Registered Quality System.

All aspects of ERA's WS-110 Study, from standard manufacture to final report generation, were completed by ERA in accordance with the "National Standards for Water Proficiency Testing Studies Criteria Document", USEPA December 30, 1998. ERA has reviewed all of the data that is contained in this report and has made every possible effort to make it complete, accurate and compliant. However, if you find anything in your report that you feel is incomplete, inaccurate or have any quality-related issues, please call me directly at 1-800-372-0122. As required by ERA Standard Operating Procedure for Handling Product and Service Problems (SOP 0150, Rev. 7.0), we will initiate an internal investigation and take corrective action as appropriate.

On behalf of ERA, thank you again for your participation in WS-110.

Sincerely,

Curtis J. Wood
Quality Assurance Director



ERA Laboratory Code: G7783-01 EPA ID: TX00010

Report Issued: 11/17/05
Study Dates: 09/12/05 - 10/27/05

WS Study Definitions:

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are established per the USEPA/NELAC FoPT Tables, June 2005. A parameter not added to the standard is given an Assigned Value of "0" per the guidelines contained in the USEPA's Criteria Document and NELAC standards.

The Acceptance Limits are established per the criteria contained in the USEPA/NELAC FoPT Tables, June 2005.

The Performance Evaluation:

Acceptable = Reported Value falls within the Acceptance Limits.

Not Acceptable = Reported Value falls outside of the Acceptance Limits.

No Evaluation = Reported Value cannot be evaluated.

The Method Description is the method the laboratory reported to ERA.

Any Performance Evaluation left blank indicates results were evaluated as 'Not Reported'.

WS Study Discussion:

ERA's WatR™ Supply Proficiency Testing Study, WS-110, has been reviewed by ERA Senior Management and certified compliant with the requirements of the USEPA's National Standards for Water Proficiency Testing Studies Criteria Document (December 1998), and the criteria contained in the NELAC FoPT Tables, June 2005. ERA is a NIST NVLAP accredited PT Provider (Lab Code 200386-0).

This report contains data that are not covered by the NVLAP accreditation.

ERA's WatR™ Supply Study, WS-110, standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes in the WS-110 standards met the acceptance criteria contained in the USEPA's National Criteria Document for Water Proficiency Testing Studies, December 1998, and the criteria contained in the NELAC FoPT Tables, June 2005.

The data submitted by participating laboratories was also examined for study anomalies. There were two study anomalies observed during the statistical review of the WS-110 data. These anomalies are addressed on the following page.

WatR™ Supply Study, WS-110, reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by NVLAP or any agency of the U. S. government.

If you have any questions regarding ERA's WatR™ Supply Proficiency Testing Study, WS-110, please contact Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Quality Assurance Director, at 1-800-372-0122.



ERA Laboratory Code: G7783-01 EPA ID: TX00010

Report Issued: 11/17/05
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- Study Discussion WS-110: Carbamate/Carboxyloxime Pesticides - Carbaryl & 3-Hydroxycarbofuran

In reviewing the statistical data for the WS-110 Carbamate/Carboxyloxime Pesticides sample, ERA observed high failure rates of 50.0% and 30.0% for carbaryl and 3-hydroxycarbofuran, respectively. As we believe these failure rates are high, we carefully reviewed all data related to proving the efficacy of the standard including manufacturing and internal analytical verification data for both accuracy and homogeneity. Our review of the data confirmed that the standard is 'fit for use'.

The mean percent recoveries for carbaryl and 3-hydroxycarbofuran were 107% and 104%, respectively. The NELAC regression equation predicts a mean recovery of 90.9 % for carbaryl and 93.0% for 3-hydroxycarbofuran. The NELAC upper acceptance limit for both analytes is 110% of the assigned value. The analytical methods cited for the analyses of Carbamate/Carboxyloxime Pesticides are USEPA methods 531.1 and 513.2. The quality control limits for both of these methods is $\pm 20\%$ of the true value. The NELAC equation upper acceptance limit is 10% lower than each method requires for quality control.

Given that upper QC limit in the applicable USEPA methods are 10% higher than the NELAC upper acceptance limit, ERA questions the appropriateness of the NELAC acceptance criteria for these two analytes. ERA will be in contact with the NELAC PT Board concerning these analytes and will ask them to review the criteria that produced the acceptance criteria. When reviewing each laboratories data the above information should be taken into account.

Study Discussion: WS-110 Unregulated Volatiles - Bromomethane

During ERA's review of the results reported for the Unregulated Volatiles standard in the WS-110 study, we observed a failure rate for bromomethane of 47.8%. This is abnormally high compared to our historical failure rate for this analyte. Therefore, we initiated a careful review of both our manufacturing and internal analytical verification data for accuracy, homogeneity and stability.

As a result of our analyte selection process, bromomethane was not spiked in this study. Our analytical testing to verify the assigned value and stability confirmed that the concentration was below the NELAC PTRL of 3 $\mu\text{g/L}$. Therefore, according to NELAC requirements, the assigned value for bromomethane was set to 0. In the study, though, 11 of 23 participants reported quantitative values for bromomethane ranging from 1.18 to 2.30 $\mu\text{g/L}$. According to the NELAC guidelines, these 11 results were initially evaluated as "Not Acceptable."

During additional analytical work conducted after the study closed, we determined that the chloroethane stock used to prepare this standard was slightly contaminated with bromomethane. Even though this resulted in a concentration of bromomethane in the WS-110 standard below the NELAC PTRL, we still consider this concentration to be significant. Upon a re-examination of all our verification analyses, we concluded that that the true concentration of bromomethane in the WS-110 Unregulated Volatiles standard is 1.83 $\mu\text{g/L}$. The NELAC manufacturing range for bromomethane is 5-50 $\mu\text{g/L}$.

The NELAC acceptance limit for bromomethane at concentrations less than 15 $\mu\text{g/L}$ is $\pm 40\%$ of the true value, which is 1.10 - 2.56 $\mu\text{g/L}$ for this study. As the laboratories that reported values within this range correctly identified and quantified bromomethane, their results have been evaluated as "Acceptable." In addition, the laboratories who followed the NELAC convention of reporting 0 or <3 $\mu\text{g/L}$, the NELAC PTRL, were also evaluated as "Acceptable."

Per our protocols, we will notify all Accrediting Authorities of this situation. If any of your Accrediting Authorities do not accept this resolution, we will contact you and immediately provide a no-charge replacement standard.

If you have any questions regarding this issue, please contact ERA's organic chemistry or proficiency testing departments at 1-800-372-0122.

Study: **WS-110**

ERA Laboratory Code: **G7783-01**

Laboratory Name: **Guadalupe Blanco River
Auth**

Report Type: **Complete**

Report Method: **Method A**

Josie Longoria
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EPA ID: TX00010
ERA Laboratory Code: G7783-01
Report Issued: 11/17/05
Study Dates: 09/12/05 - 10/27/05

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
Hardness							
1755	Total Hardness as CaCO ₃	mg/L		209	187 - 232		
0025	Calcium Hardness as CaCO ₃ †	mg/L	158	135	120 - 150	Not Acceptable	SM 2340-Ca B.
1035	Calcium	mg/L	63.3	54.2	48.3 - 60.2	Not Acceptable	SM 3111 B.
1085	Magnesium	mg/L		17.8	16.0 - 19.8		