Air and Emissions Study

Open Date: 01/26/15

Close Date: 03/12/15

Report Issued Date: 03/16/15
March 16, 2015

Glen A Clark
WRPS
MSIN T6-03
PO Box 850
Richland, WA 99352

Enclosed is your final report for ERA’s AE-31 Air and Emissions Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

All analytes in ERA’s AE-31 Air and Emissions Proficiency Testing (PT) study have been evaluated using the following tiered approach: ERA has gathered proficiency testing data for air and emissions across many national and international studies. Where available, the acceptance criteria have been calculated using these studies’ data. Where appropriate, ERA has based the acceptance criteria on the study means and study standard deviations. If the analyte is on the TNI FoPT table, it has been evaluated by comparing your results to the acceptance limits and evaluation criteria contained in the current TNI FoPT tables. Where these data were not available, the reported results have 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 many 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 useful in helping you work through your technical issues.

At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than “0.” In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with “Not Acceptable” evaluations.

Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA’s AE-31 Air and Emissions Proficiency Testing (PT) study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Kristina Sanchez
Quality Officer

attachments
<table>
<thead>
<tr>
<th>Report Recipient</th>
<th>Contact/Phone Number</th>
<th>Reporting Type</th>
<th>Evaluation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIHA-LAP, LLC</td>
<td>Lena Bulgakova / 703-849-8888</td>
<td>All Analytes</td>
<td>2009 TNI</td>
</tr>
</tbody>
</table>

Study # : AE-31
AE-31 Definitions & Study Discussion

**AE Study Definitions**

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

The Assigned Values for ERA’s Air and Emissions Proficiency Testing (PT) Standards are equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation as applicable. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards.

The Acceptance Limits are established per the 2009 TNI Standards criteria or ERA’s SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

- **Acceptable** = Reported Value falls within the Acceptance Limits.
- **Not Acceptable** = Reported Value falls outside the Acceptance Limits.
- **No Evaluation** = Reported Value cannot be evaluated.
- **Not Reported** = No Value reported.

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

**AE Study Discussion**

ERA’s AE-31 Air and Emissions Proficiency Testing (PT) study has been reviewed by ERA senior management.

A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes in the Air and Emissions study standards met the acceptance criteria contained in the 2009 TNI PT Standards. The acceptance limits were calculated using the procedures outlined in ERA’s Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260, Rev. 2.0).

The data submitted by participating laboratories was also examined for study anomalies. There were no anomalies observed during the statistical review of the data.

ERA’s Air and Emissions Proficiency Testing study reports shall not be reproduced except in its entirety and not without the permission of the participating laboratory. The report must not be used by the participating laboratories to claim product endorsement any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA’s Air and Emissions Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.
2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.
Final Report Results For Laboratory
WRPS
2009 TNI Evaluation Report
Study: AE-31
ERA Customer Number: W843195
Laboratory Name: WRPS

Organic Results
<table>
<thead>
<tr>
<th>TNI Analyte Code</th>
<th>Analyte</th>
<th>Units</th>
<th>Reported Value</th>
<th>Assigned Value</th>
<th>Acceptance Limits</th>
<th>Performance Evaluation</th>
<th>Method Description</th>
<th>Analysis Date</th>
<th>Z Score</th>
<th>Study Mean</th>
<th>Study Standard Deviation</th>
<th>Analyst Name</th>
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<tbody>
<tr>
<td>4300</td>
<td>Acetaldehyde</td>
<td>µg/sample</td>
<td>8.70</td>
<td>8.48</td>
<td>5.94 - 11.0</td>
<td>Acceptable</td>
<td>IH-LT-523-161 A-1</td>
<td>3/5/2015</td>
<td>2.05</td>
<td>7.94</td>
<td>0.370</td>
<td>M. Stauffer</td>
</tr>
<tr>
<td>4315</td>
<td>Acetone</td>
<td>µg/sample</td>
<td>5.07</td>
<td>3.55 - 6.59</td>
<td>Not Reported</td>
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<td></td>
<td>5.67</td>
<td>0.858</td>
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<tr>
<td>5570</td>
<td>Benzaldehyde</td>
<td>µg/sample</td>
<td>7.51</td>
<td>5.26 - 9.76</td>
<td>Not Reported</td>
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<td></td>
<td>8.16</td>
<td>0.189</td>
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<tr>
<td>4410</td>
<td>2-Butanone (MEK)</td>
<td>µg/sample</td>
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<td>0.00 - 0.500</td>
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<tr>
<td>4405</td>
<td>Butyraldehyde (butanal)</td>
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<td>0.00 - 0.500</td>
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<td>4545</td>
<td>Crotonaldehyde</td>
<td>µg/sample</td>
<td>&lt; 0.500</td>
<td>0.00 - 0.500</td>
<td>Not Reported</td>
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<tr>
<td>6110</td>
<td>2,5-Dimethylbenzaldehyde</td>
<td>µg/sample</td>
<td>&lt; 0.500</td>
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<td>4815</td>
<td>Formaldehyde</td>
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<td>8.44</td>
<td>8.36</td>
<td>5.85 - 10.9</td>
<td>Acceptable</td>
<td>IH-LT-523-161 A-1</td>
<td>3/5/2015</td>
<td>0.927</td>
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<td>4845</td>
<td>Hexaldehyde (hexanal)</td>
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<td>6.81 - 12.6</td>
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<td>8.71</td>
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<td>6330</td>
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<td>3965</td>
<td>Propionaldehyde (propanal)</td>
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<td>4.91 - 9.13</td>
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<td>6.51</td>
<td>0.195</td>
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<td>5125</td>
<td>m-Tolualdehyde</td>
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<td>5130</td>
<td>o-Tolualdehyde</td>
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<tr>
<td>5135</td>
<td>p-Tolualdehyde</td>
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<td>4040</td>
<td>Valeraldehyde (pentanal)</td>
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CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

AE-31
WRPS

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 79 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Aldehydes & Ketones on Sorbent

Kristina Sanchez
Quality Officer