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December 12, 2019

Ms. Anne Antin  
Hawaii Analytical Laboratory, LLC  
3615 Harding Ave Ste 308  
Honolulu, HI 96816  
USA

Dear Anne,

Thank you for participating in the AE1019 Air & Emissions Proficiency Testing Study. Enclosed is your final report, which has been carefully reviewed by the PT specialists at Phenova. This report presents some additional sections and features which will give you more information on the study data for the standards that were reported by your laboratory and more information regarding the overall performance of your laboratory in relation to other study participants.

The enclosed report is in two sections, the "Evaluation Report" and the "Statistical Report". The "Evaluation Report" contains the evaluation of your reported data as well the reported method, analysis date and analyst. The "Evaluation Report" is an updated and enhanced version of the reports you previously received at the conclusion of our PT studies. The "Statistical Report" contains your passing percentage as well as statistics from the study for the analytes reported by your laboratory.

For any analyte falling outside the established acceptance limits, our PT management staff would like to assist you in determining the most appropriate course of corrective action for your facility. Please contact us at any time if we may be of service to you.

Thank you again for participating in the AE1019 Air & Emissions Proficiency Testing Study. We appreciate working with you and look forward to our next study. If you have any questions, please call us at 866-942-2978.

**Report Definitions:**

***Assigned Value***

The Assigned Value is determined from the study mean, gravimetric and volumetric true concentration of an analyte to be analyzed, calculation and/or an appropriate reference value as stipulated in the EPA National Standards for Water Proficiency Testing Studies Criteria Document (current version), the National Environmental Laboratory Accreditation Conference Institute (TNI) criteria (ref: TNI FOT tables, TNI PT Committee) and other documents distributed by accrediting agencies as applicable.

***Evaluation Limits***

Acceptance Limits are derived from fixed limits, coefficients, constants and calculations stipulated in the EPA National Standards for Water Proficiency Testing Studies Criteria Documents (current version), the National Environmental Laboratory Accreditation Conference Institute (TNI) criteria (ref: TNI FOT tables, TNI PT Committee) and other documents distributed by accrediting agencies as applicable.

***Evaluation***

*Acceptable*

The reported value falls within the Acceptance Limits.

*Not Acceptable*

The reported value falls outside the Acceptance Limits.

*No Evaluation*

The reported value is non-numeric and can not be evaluated.

*NR*

As required by the TNI standards and requested by state authorities, any analyte purchased but not reported by your facility is listed as NR (Not Reported).

***Study Mean and Standard Deviation***

The mean and standard deviation are calculated from the study data using robust statistical calculations when possible. Other statistical calculations may be used if robust statistical calculations are not possible. The displayed values are independent of any statistical calculations required for the calculation of the analyte evaluation limits.

This report must not be reproduced except in full, without the written approval of Phenova. Various aspects of Phenova's proficiency testing schemes can from time to time be subcontracted. If subcontracting occurs, it is placed with a competent and qualified subcontractor and Phenova is responsible for all work performed.

This report must not be used to claim product certification, approval, or endorsement by the American Association for Laboratory Accreditation (A2LA) or any agency of the federal government.



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State Regulatory Agency Request(s):

No requests were made to send a copy of your AE1019 final results to a state agency.

Other Regulatory Agency Request(s):

No requests were made to send a copy of your AE1019 final results to an agency.

Third Party Request(s):

No requests were made to send a copy of your AE1019 final results to a third party.

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## Final Report - Air & Emissions Proficiency Testing

### Study: AE1019

Opening Date: October 21, 2019 - Closing Date: December 5, 2019

Laboratory: Hawaii Analytical Laboratory, LLC  
3615 Harding Ave Ste 308  
Honolulu, HI 96816  
USA

Contact: Ms. Anne Antin  
8087350422

EPA Lab ID:

### Chromium VI on Filter Paper (PT-CR6-AIR)

Lot #: 1063-05

NELAC Code	Analyte	Analysis Date	Analyst	Method Code	Method Description	Units	Assigned Value	Result	Acceptance Limits	Evaluation
1045	Chromium VI	12/5/2019	jh	90018045	NIOSH 7600 1994	µg/filter	42.4	35.48	33.9 - 50.9	Acceptable



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## PT Study Score Report

EPA ID:  
 Laboratory: Hawaii Analytical Laboratory, LLC  
 3615 Harding Ave Ste 308  
 Honolulu, HI 96816  
 USA

Study Number	Number of Reported Results	Number of Passing Results	Percent Passing
AE1019	1	1	100%

### Report Definitions:

- Number of Reported Results**      The number of results reported which could be evaluated. Results receiving an evaluation of "NR" or "No Evaluation" are not included.
- Number of Passing Results**      The number of results reported receiving an evaluation of "Acceptable" or "Check for Error".
- Percent Passing**                      The percentage of results reported receiving an evaluation of "Acceptable" or "Check for Error".



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## Statistical Summary Report - Air & Emissions Proficiency Testing

**Opening Date: October 21, 2019 - Closing Date: December 5, 2019**

Laboratory: Hawaii Analytical Laboratory, LLC  
3615 Harding Ave Ste 308  
Honolulu, HI 96816  
USA

Contact: Ms. Anne Antin  
8087350422

EPA Lab ID:

Chromium VI on Filter Paper (PT-CR6-AIR)						Lot #: 1063-05
NELAC Code	Analyte	Units	Study Mean	Study Standard Deviation	Low Acceptance Limit %	High Acceptance Limit %
1045	Chromium VI	µg/filter	40.8	3.43	80.0	120