

NVLAP Bulk Asbestos Proficiency Test

M22019

Individual Laboratory Results

February 14, 2020

NVLAP Lab Code 200655

Hawaii Analytical Laboratory, LLC

3615 Harding Ave., Suite 308

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United States

PROFICIENCY TEST PENALTY POINTS

| | |
|----------------------------|----------|
| Sample 1 | 0 |
| Sample 2 | 0 |
| Sample 3 | 0 |
| Sample 4 | 0 |
| TOTAL POINTS: | 0 |

Failure = 150 or more total points

Prepared by RTI International
for
NIST's National Voluntary Laboratory Accreditation Program
For Bulk Asbestos Analysis by PLM

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Sample 1

| Criteria | Reported by Laboratory | Mean Reference Values | Acceptable Answers | Assigned Points |
|--|--------------------------------------|--------------------------------------|--|-----------------|
| Asbestos Type (150 pts./type > 0.1 %, 75 pts./type if 0.1 %) | CHRY | CHRY | Chrysotile | |
| Reporting Additional Asbestos Type (150 pts. if >0.1 %, 75 pts. if 0.1 %) | | | None | |
| Mean % Asbestos (50 pts.) | 3 | 5.6 % | 2 % to 10 % | |
| Average Refractive Index (40 pts. each index, 10 pts. If $\gamma \leq \alpha$) | $\alpha = 1.554$ $\gamma = 1.558$ | $\alpha = 1.550$ $\gamma = 1.556$ | α : 1.545 to 1.554 γ : 1.550 to 1.561 | |
| Birefringence (10 pts.) | L | Low | Low or Moderate * | |
| Pleochroism (10 pts.) | N | No | No | |
| Extinction (10 pts.) | P | Parallel | Parallel | |
| Sign of Elongation (10 pts.) | P | Positive | Positive | |
| Color (10 pts.) | CL | Colorless | Colorless | |

** Birefringence results that are correctly calculated based on participant refractive index values will not receive penalty points even if they differ from the reference value. Beginning in round M12019, reported birefringence results that are inconsistent with the reported refractive index values receive penalty points.*

Total Points Assigned for Sample 1: 0

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Sample 2

| Criteria | Reported by Laboratory | Mean Reference Values | Acceptable Answers | Assigned Points |
|--|--------------------------------------|--------------------------------------|--|-----------------|
| Asbestos Type (150 pts./type > 0.1 %, 75 pts./type if 0.1 %) | CHRY | CHRY | Chrysotile | |
| Reporting Additional Asbestos Type (150 pts. if >0.1 %, 75 pts. if 0.1 %) | | | None | |
| Mean % Asbestos (50 pts.) | 1 | 2.3 % | 0.1 % to 4 % | |
| Average Refractive Index (40 pts. each index, 10 pts. If $\gamma \leq \alpha$) | $\alpha = 1.554$ $\gamma = 1.560$ | $\alpha = 1.551$ $\gamma = 1.557$ | α : 1.545 to 1.556 γ : 1.549 to 1.565 | |
| Birefringence (10 pts.) | L | Low | Low or Moderate * | |
| Pleochroism (10 pts.) | N | No | No | |
| Extinction (10 pts.) | P | Parallel | Parallel | |
| Sign of Elongation (10 pts.) | P | Positive | Positive | |
| Color (10 pts.) | CL | Colorless | Colorless | |

** Birefringence results that are correctly calculated based on participant refractive index values will not receive penalty points even if they differ from the reference value. Beginning in round M12019, reported birefringence results that are inconsistent with the reported refractive index values receive penalty points.*

Total Points Assigned for Sample 2: 0

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Sample 3

| Criteria | Reported by Laboratory | Mean Reference Values | Acceptable Answers | Assigned Points |
|--|--------------------------------------|--------------------------------------|--|-----------------|
| Asbestos Type (150 pts./type > 0.1 %, 75 pts./type if 0.1 %) | CROC | CROC | Crocidolite | |
| Reporting Additional Asbestos Type (150 pts. if >0.1 %, 75 pts. if 0.1 %) | | | None | |
| Mean % Asbestos (50 pts.) | 5 | 5.8 % | 1 % to 9 % | |
| Average Refractive Index (40 pts. each index, 10 pts. If $\gamma \leq \alpha$) | $\alpha = 1.690$ $\gamma = 1.696$ | $\alpha = 1.694$ $\gamma = 1.699$ | α : 1.677 to 1.710 γ : 1.684 to 1.714 | |
| Birefringence (10 pts.) | L | Low | Low or Moderate * | |
| Pleochroism (10 pts.) | Y | Yes | Yes | |
| Extinction (10 pts.) | P | Parallel | Parallel | |
| Sign of Elongation (10 pts.) | N | Negative | Negative | |
| Color (10 pts.) | BL | Blue | Blue | |

** Birefringence results that are correctly calculated based on participant refractive index values will not receive penalty points even if they differ from the reference value. Beginning in round M12019, reported birefringence results that are inconsistent with the refractive index values receive penalty points.*

Total Points Assigned for Sample 3: 0

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Sample 4

| Criteria | Reported by Laboratory | Mean Reference Values | Acceptable Answers | Assigned Points |
|---|------------------------|-----------------------|--------------------|-----------------|
| Asbestos Type (150 pts./type > 0.1 %, 75 pts./type if 0.1 %) | NONE | None | None | |
| Reporting Additional Asbestos Type (150 pts. if >0.1 %, 75 pts. if 0.1 %) | | | None | |

Total Points Assigned for Sample 4: 0

Contacts

Hawaii Analytical Laboratory, LLC

NVLAP Lab Code 200655

NVLAP AUTHORIZED CONTACT

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United States

RTI cannot update the NVLAP Authorized Contact. To make changes, please contact NVLAP: nvlap@nist.org. NVLAP will periodically provide RTI with the current information.

RTI SHIPPING CONTACT

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Please update your shipping or billing contact information on RTI's NVLAP PLM website: <https://nvlap-plm.rti.org/>.

Thank you for participating in the NVLAP Bulk (PLM) Proficiency Testing Program.