

State of Hawaii, Department of Health, Clean Air Branch
2023 Maui Wildfires
Ambient Community Air Monitoring and Sampling Weekly Report
Lahaina, Maui

November 21 through November 27, 2024

Tetra Tech, Inc. (Tetra Tech) prepared a Community Air Monitoring and Sampling Plan (CAMSP) to address the evaluation and documentation of air quality and inhalation exposure risks during debris removal operations performed in response to the 2023 Maui Wildfires. Air monitoring and sampling as prescribed in the CAMSP will continue until debris removal activities are complete or until HDOH advises otherwise.

Particulate monitoring and air sampling occurred from November 21 through November 27, 2024, at the community locations listed below and shown on **Figure 1**.

- WW Pump Station #4 (AM-02)
- Lahaina Intermediate School (AM-03)
- Opukea Townhomes (AM-05)
- Lahaina Recreational Center (AM-07)

Real-time air quality monitoring for particulate matter was collected at each community location over a 24-hour period each day in accordance with the CAMSP. Ambient air monitoring was performed to assess the presence of airborne particulates with a particle size diameter of 10 micrometers (μm), which is the size that is recognized as being small enough to be inhaled into a person's lungs. This particle size diameter is recognized for health evaluations and is identified as "PM₁₀". Monitoring for PM₁₀ was conducted 24 hours a day, 7 days a week from November 21 through November 27 at each of the community locations. Ambient air monitoring results were compared to the National Ambient Air Quality Standard (NAAQS) for PM₁₀, 24-hour time-weighted average of 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), which was selected as the screening level for this activity.

This weekly report does not address air quality monitoring results for fine particulate matter (particle size diameter of 2.5 μm or less [PM_{2.5}]). This was not necessary because the Department of Health/U.S. Environmental Protection Agency (EPA) monitors for this parameter at six locations in Lahaina, and the results from that monitoring are accessible at <https://fire.airnow.gov/>.

Air samples were analyzed for asbestos and 16 metals, including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, thallium, vanadium, and zinc. Analytical results were compared to Site Screening Action Levels (SSALs) as presented in the CAMSP.

Air Monitoring Results

In addition to the air sampling activities, real-time PM₁₀ concentrations were collected at each of the four monitoring locations throughout this reporting period. Monitoring was conducted 24 hours a day at each station. None of the PM₁₀ monitoring results exceeded the 150 $\mu\text{g}/\text{m}^3$ screening level established in the CAMSP, as shown in **Table 1**.

Air Sampling Results

A total of 28 samples for asbestos fibers were collected during this reporting period. All analytical results from this reporting period were below the SSAL for asbestos of 0.003 structures per cubic centimeter (s/cc), as results were below the laboratory's analytical sensitivity (see **Table 2**).

Low levels of metals were detected from samples collected at all community locations. However, all detections were below their respective SSALs. (see **Table 2**).

Laboratory data sheets conveying asbestos and metals results are in **Appendix 1**.

Meteorological Summary

Overall wind conditions during this weekly event averaged 1.3 miles per hour and were generally from a southeast direction. **Table 3** summarizes the collected meteorological data.

Quality Control Summary

This section presents quality control measures implemented throughout the air monitoring and sampling reporting period. All references and standard operating procedures (SOPs) are included in the CAMSP.

Air monitoring was performed using Met One Instruments, Inc., environmental beta attenuation mass monitors (E-BAM) to allow comparison to NAAQS for particulates. E-BAMs are factory-calibrated annually and do not require daily calibrations. Leak checks and a flow audit were performed before each monitoring activity, in accordance with the manufacturer's procedures.

Asbestos sampling was performed using Casella Vortex 3 (or similar) air sampling pumps. Sampling flow rates were determined and documented by pre- and post-calibration of each sampling pump, using a primary calibration standard. Pump calibration and sampling were performed according to Tetra Tech SOPs 064-2 "Calibration of Air Sampling Pump" and 073-3, "Air Quality Monitoring" and EPA Environmental Response Team (ERT) SOPs 2008 "General Air Monitoring and Sampling Guidelines" and 2015 "Asbestos Air Sampling," included in the CAMSP.

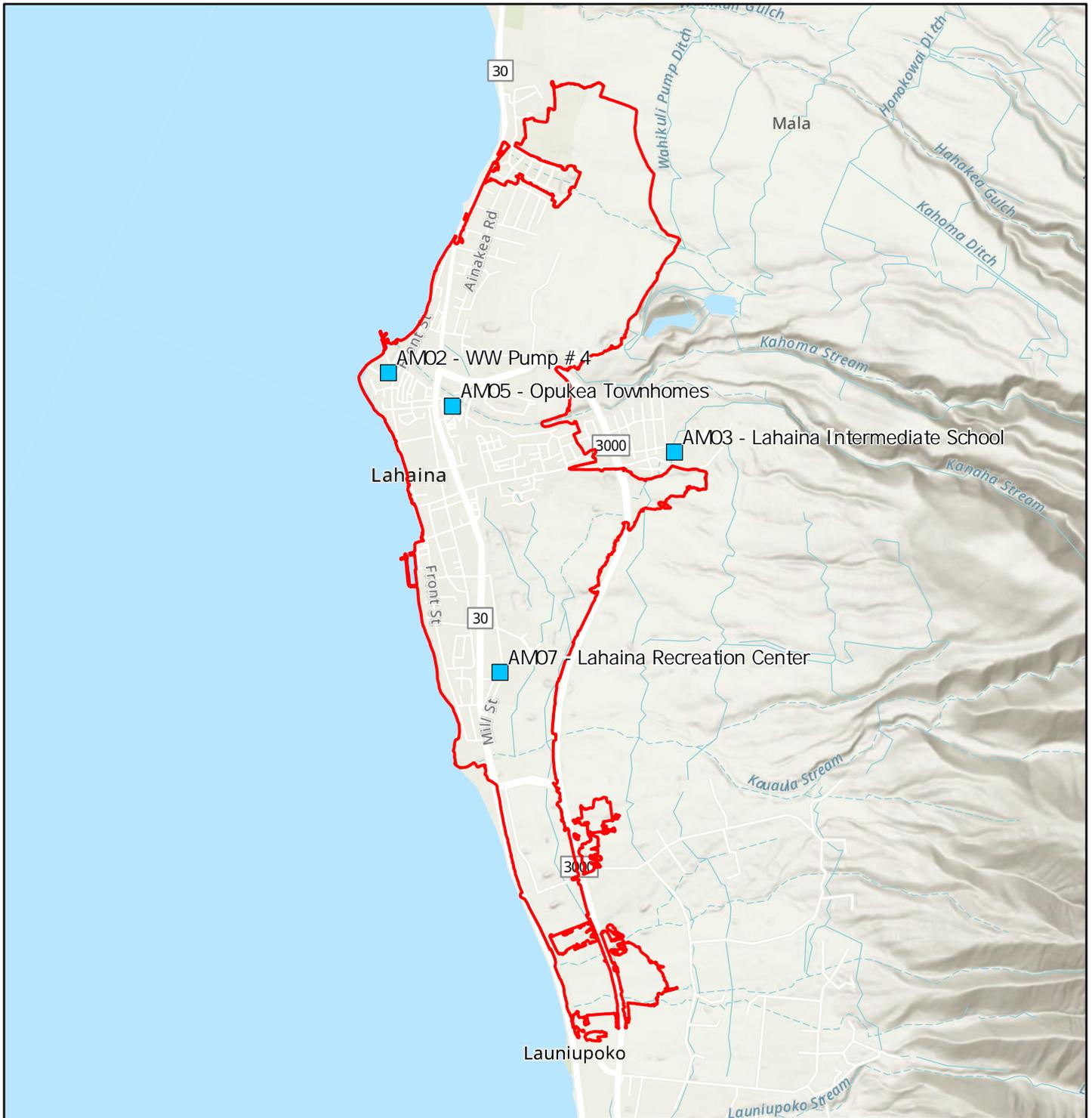
Sampling for metals occurred using Tisch Environmental High Volume Air Samplers (or equivalent) in accordance with the following methods:

- EPA Compendium Method IO-2.1, Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and for PM₁₀ by Use of a High Volume (HV) Sampler
- EPA Compendium Method IO-3.5: Compendium of Methods for Determination of Inorganic Compounds in Ambient Air: Determination of Metals in Ambient Particulate Matter Via Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) EPA/625/R-96/010a
- EPA 40 *Code of Federal Regulations* (CFR) Part 50, Method for Determination of Lead in Total Suspended Particulate Matter
- EPA 40 CFR Part 58, Appendix E: Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring
- American Society for Testing and Materials (ASTM) SOPs for Lead Monitoring by Use of a Total Suspended Particulate (TSP) High Volume Sampler

Field technicians conducted photographic and written documentation in accordance with Tetra Tech SOP No. 024-4, "Recording of Notes in Field Logbook".

Following receipt of air sampling results from off-site analytical laboratories, analytical data were compared to SSALs and are maintained in an electronic database. All data were subjected to Level 1 data verification and are reviewed by an industrial hygienist.

Attachments



- Air Sampling Locations
- Lahaina Fire Perimeter

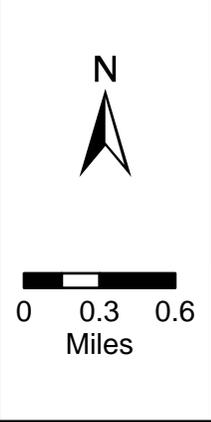


Figure 1
Air Sampling Locations

Hawaii DOH
2023 Lahaina Wildfire

Table 3
State of Hawaii, Department of Health, Clean Air Branch
Averaged Meteorological Data
Maui Wildfires, Lahaina
November 21, through November 27, 2024

| Date | Station ID | Weather Station Name | Wind Speed (mph) | Wind Direction (angle) | Temperature (°F) | Rel Humidity (%) | Baro Pressure (mBar) |
|------------|------------|-----------------------------|------------------|------------------------|------------------|------------------|----------------------|
| 11/21/2024 | AM-02 | WW Pump Station #4 | 0.8 | SSE | 77 | 61 | 762.0 |
| 11/21/2024 | AM-03 | Lahaina Intermediate School | 1.1 | ESE | 76 | 59 | 752.8 |
| 11/21/2024 | AM-05 | Opukea Townhomes | 1.2 | SE | 77 | 57 | 761.5 |
| 11/21/2024 | AM-07 | Lahaina Recreational Center | 1.4 | SE | 76 | 61 | 761.3 |
| 11/22/2024 | AM-02 | WW Pump Station #4 | 0.9 | SSE | 77 | 63 | 763.0 |
| 11/22/2024 | AM-03 | Lahaina Intermediate School | 0.9 | SE | 75 | 62 | 753.7 |
| 11/22/2024 | AM-05 | Opukea Townhomes | 0.9 | ESE | 76 | 59 | 762.5 |
| 11/22/2024 | AM-07 | Lahaina Recreational Center | 1.4 | SE | 75 | 64 | 762.3 |
| 11/23/2024 | AM-02 | WW Pump Station #4 | 1.0 | SE | 77 | 64 | 762.1 |
| 11/23/2024 | AM-03 | Lahaina Intermediate School | 1.2 | SE | 75 | 60 | 752.8 |
| 11/23/2024 | AM-05 | Opukea Townhomes | 1.1 | E | 77 | 58 | 761.6 |
| 11/23/2024 | AM-07 | Lahaina Recreational Center | 1.5 | SSE | 75 | 64 | 761.3 |
| 11/24/2024 | AM-02 | WW Pump Station #4 | 0.9 | SSE | 76 | 65 | 761.0 |
| 11/24/2024 | AM-03 | Lahaina Intermediate School | 1.0 | SE | 75 | 63 | 751.7 |
| 11/24/2024 | AM-05 | Opukea Townhomes | 1.0 | E | 76 | 59 | 760.5 |
| 11/24/2024 | AM-07 | Lahaina Recreational Center | 1.4 | SSE | 74 | 66 | 760.2 |
| 11/25/2024 | AM-02 | WW Pump Station #4 | 1.0 | SSE | 78 | 67 | 760.9 |
| 11/25/2024 | AM-03 | Lahaina Intermediate School | 1.6 | E | 77 | 61 | 751.6 |
| 11/25/2024 | AM-05 | Opukea Townhomes | 1.5 | E | 78 | 61 | 760.4 |
| 11/25/2024 | AM-07 | Lahaina Recreational Center | 1.7 | ESE | 76 | 64 | 760.2 |
| 11/26/2024 | AM-02 | WW Pump Station #4 | 1.3 | SSE | 78 | 63 | 761.8 |
| 11/26/2024 | AM-03 | Lahaina Intermediate School | 1.9 | ESE | 77 | 58 | 752.4 |
| 11/26/2024 | AM-05 | Opukea Townhomes | 1.6 | E | 78 | 58 | 761.3 |
| 11/26/2024 | AM-07 | Lahaina Recreational Center | 2.0 | SSE | 76 | 62 | 761.0 |
| 11/27/2024 | AM-02 | WW Pump Station #4 | 1.3 | SE | 79 | 62 | 761.5 |
| 11/27/2024 | AM-03 | Lahaina Intermediate School | 1.4 | ESE | 77 | 61 | 752.1 |
| 11/27/2024 | AM-05 | Opukea Townhomes | 2.0 | E | 78 | 58 | 761.0 |
| 11/27/2024 | AM-07 | Lahaina Recreational Center | 1.4 | ESE | 76 | 64 | 760.7 |

Notes:
°F - Fahrenheit
mBar - millibar
mph - miles per hour

Table 1
State of Hawaii, Department of Health, Clean Air Branch
Particulate Monitoring Results for PM₁₀
Maui Wildfires, Lahaina
November 21 through November 27, 2024

| Screening Level | | TWA Results 150 (µg/m ³) |
|-----------------|-------------------------------------|---|
| 11/21/2024 | Opukea Townhomes (AM-05) | 7.3 |
| | WW Pump Station #4 (AM-02) | 12 |
| | Lahaina Intermediate School (AM-03) | 5.0 |
| | Lahaina Recreation Center (AM-07) | 7.6 |
| 11/22/2024 | Opukea Townhomes (AM-05) | 5.2 |
| | WW Pump Station #4 (AM-02) | 6.4 |
| | Lahaina Intermediate School (AM-03) | 6.0 |
| | Lahaina Recreation Center (AM-07) | 7.1 |
| 11/23/2024 | Opukea Townhomes (AM-05) | 6.8 |
| | WW Pump Station #4 (AM-02) | 6.8 |
| | Lahaina Intermediate School (AM-03) | 5.2 |
| | Lahaina Recreation Center (AM-07) | 5.0 |
| 11/24/2024 | Opukea Townhomes (AM-05) | 5.4 |
| | WW Pump Station #4 (AM-02) | 6.6 |
| | Lahaina Intermediate School (AM-03) | 6.1 |
| | Lahaina Recreation Center (AM-07) | 6.4 |
| 11/25/2024 | Opukea Townhomes (AM-05) | 9.7 |
| | WW Pump Station #4 (AM-02) | 7.0 |
| | Lahaina Intermediate School (AM-03) | 6.0 |
| | Lahaina Recreation Center (AM-07) | 9.9 |
| 11/26/2024 | Opukea Townhomes (AM-05) | 11 |
| | WW Pump Station #4 (AM-02) | 7.3 |
| | Lahaina Intermediate School (AM-03) | 6.4 |
| | Lahaina Recreation Center (AM-07) | 10 |
| 11/27/2024 | Opukea Townhomes (AM-05) | 12 |
| | WW Pump Station #4 (AM-02) | 9.9 |
| | Lahaina Intermediate School (AM-03) | 7.7 |
| | Lahaina Recreation Center (AM-07) | 7.2 |

Notes:

µg/m³ = micrograms per cubic meter

TWA = 24-Hour Time-Weighted Average

TWA calculation results are shown in two significant figures

Table 2
State of Hawaii, Department of Health, Clean Air Branch
Asbestos and Metals Sampling Results
Maui Wildfires, Lahaina
November 21 through November 27, 2024

| Analyte | Asbestos | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Lead | Manganese | Molybdenum | Nickel | Selenium | Thallium | Vanadium | Zinc | |
|---|-------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----|
| Units* | s/cc | µg/m ³ | |
| Site Screening Action Level | 0.003 ¹ | 0.7 | 0.05 | 1.2 | 0.05 | 0.02 | 12 | 0.01 | 240 | 1.5 | 0.12 | 4.8 | 0.02 | 48 | 24 | 0.24 | 1200 | |
| 11/21/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.000140 | 0.000282 | 0.00545 | 0.0000124 | ND | 0.00333 | 0.000524 | 0.0545 | 0.000674 | 0.0144 | 0.00287 | 0.00194 | 0.000166 | 0.00000140 | 0.00163 | ND |
| | WW Pump Station #4 (AM-02) | <0.0024 | 0.000238 | 0.000398 | 0.0105 | 0.0000287 | ND | 0.00485 | 0.00111 | 0.0490 | 0.00103 | 0.0304 | 0.00174 | 0.00311 | 0.000241 | 0.00000192 | 0.00357 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0024 | 0.0000819 | 0.000141 | 0.00281 | 0.0000208 | ND | 0.00231 | 0.000378 | 0.0601 | 0.000239 | 0.00963 | 0.00240 | 0.00120 | 0.000158 | 0.00000106 | 0.000938 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.0000819 | 0.000474 | 0.00574 | 0.0000220 | ND | 0.00339 | 0.000744 | 0.0302 | 0.000474 | 0.0256 | 0.00141 | 0.00183 | 0.000185 | 0.00000158 | 0.00197 | ND |
| 11/22/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.000104 | 0.000212 | 0.00457 | 0.0000125 | ND | 0.00271 | 0.000474 | 0.0502 | 0.000671 | 0.0128 | 0.00257 | 0.00168 | 0.000157 | 0.00000144 | 0.00153 | ND |
| | WW Pump Station #4 (AM-02) | <0.0027 | 0.000452 | 0.000652 | 0.0135 | 0.0000415 | 0.000250 | 0.00563 | 0.00136 | 0.0558 | 0.00233 | 0.0409 | 0.00206 | 0.00381 | 0.000277 | 0.00000242 | 0.00428 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0027 | 0.0000712 | 0.000213 | 0.00456 | 0.0000354 | ND | 0.00373 | 0.000711 | 0.0590 | 0.000371 | 0.0172 | 0.00271 | 0.00235 | 0.000203 | 0.00000154 | 0.00194 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.0000819 | 0.000910 | 0.0157 | 0.0000760 | ND | 0.00734 | 0.00202 | 0.0296 | 0.00165 | 0.0702 | 0.00126 | 0.00431 | 0.000385 | 0.00000344 | 0.00519 | ND |
| 11/23/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.000124 | 0.000208 | 0.00485 | 0.0000110 | ND | 0.00322 | 0.000417 | 0.0367 | 0.000535 | 0.0115 | 0.00253 | 0.00203 | 0.000142 | 0.00000147 | 0.00133 | ND |
| | WW Pump Station #4 (AM-02) | <0.0024 | 0.000241 | 0.000367 | 0.00976 | 0.0000309 | ND | 0.00475 | 0.00116 | 0.0440 | 0.00119 | 0.0292 | 0.00262 | 0.00339 | 0.000217 | 0.00000224 | 0.00336 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0024 | 0.0000779 | 0.000186 | 0.00428 | 0.0000220 | ND | 0.00332 | 0.000568 | 0.0671 | 0.000489 | 0.0132 | 0.00366 | 0.00213 | 0.000160 | 0.00000167 | 0.00144 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.000102 | 0.000311 | 0.00568 | 0.0000283 | ND | 0.00317 | 0.000720 | 0.0283 | 0.000969 | 0.0242 | 0.00132 | 0.00193 | 0.000206 | 0.00000188 | 0.00190 | ND |
| 11/24/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.0000997 | 0.000176 | 0.00386 | 0.00000966 | ND | 0.00235 | 0.000362 | 0.0308 | 0.000506 | 0.0106 | 0.00226 | 0.00156 | 0.000150 | 0.00000137 | 0.00150 | ND |
| | WW Pump Station #4 (AM-02) | <0.0024 | 0.000258 | 0.000230 | 0.00691 | 0.0000119 | 0.000128 | 0.00242 | 0.000426 | 0.0536 | 0.000948 | 0.0139 | 0.00356 | 0.00157 | 0.000170 | 0.00000148 | 0.00173 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0030 | 0.0000540 | 0.000214 | 0.00242 | 0.00000954 | ND | 0.00193 | 0.000270 | 0.0451 | 0.000401 | 0.00720 | 0.00277 | 0.00122 | 0.000132 | 0.00000116 | 0.00110 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.0000748 | 0.000280 | 0.00364 | 0.0000177 | ND | 0.00253 | 0.000455 | 0.0200 | 0.000436 | 0.0170 | 0.00126 | 0.00150 | 0.000168 | 0.00000142 | 0.00159 | ND |
| 11/25/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.000172 | 0.000290 | 0.00720 | 0.0000219 | ND | 0.00576 | 0.000973 | 0.0398 | 0.000562 | 0.0238 | 0.00282 | 0.00393 | 0.000174 | 0.00000175 | 0.00283 | ND |
| | WW Pump Station #4 (AM-02) | <0.0024 | 0.000218 | 0.000365 | 0.00926 | 0.0000263 | ND | 0.00420 | 0.000968 | 0.0561 | 0.00130 | 0.0262 | 0.00251 | 0.00291 | 0.000189 | 0.00000185 | 0.00294 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0024 | 0.0000585 | 0.000199 | 0.00464 | 0.0000351 | ND | 0.00801 | 0.000907 | 0.0716 | 0.000628 | 0.0207 | 0.00320 | 0.00583 | 0.000200 | 0.00000167 | 0.00212 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.000132 | 0.000660 | 0.00607 | 0.0000310 | ND | 0.00529 | 0.00106 | 0.0310 | 0.000867 | 0.0354 | 0.00145 | 0.00269 | 0.000228 | 0.00000248 | 0.00291 | ND |
| 11/26/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.000137 | 0.000791 | 0.0167 | 0.0000697 | ND | 0.0121 | 0.00309 | 0.0428 | 0.00117 | 0.0722 | 0.00258 | 0.00963 | 0.000384 | 0.00000368 | 0.00856 | ND |
| | WW Pump Station #4 (AM-02) | <0.0024 | 0.000247 | 0.000613 | 0.0153 | 0.0000425 | ND | 0.00666 | 0.00161 | 0.0703 | 0.00260 | 0.0460 | 0.00265 | 0.00473 | 0.000319 | 0.00000254 | 0.00508 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0024 | 0.0000740 | 0.000260 | 0.00487 | 0.0000461 | ND | 0.00533 | 0.00108 | 0.0617 | 0.000657 | 0.0257 | 0.00359 | 0.00320 | 0.000252 | 0.00000198 | 0.00251 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.000141 | 0.00143 | 0.0113 | 0.0000750 | ND | 0.0102 | 0.00250 | 0.0241 | 0.00134 | 0.0826 | 0.00108 | 0.00563 | 0.000447 | 0.00000423 | 0.00661 | ND |
| 11/27/2024 | Opukea Townhomes (AM-05) | <0.0024 | 0.0000948 | 0.000850 | 0.0171 | 0.0000767 | ND | 0.0149 | 0.00379 | 0.0377 | 0.000893 | 0.0839 | 0.00190 | 0.0103 | 0.000413 | 0.00000368 | 0.0103 | ND |
| | WW Pump Station #4 (AM-02) | <0.0027 | 0.000172 | 0.000754 | 0.0139 | 0.0000543 | ND | 0.00717 | 0.00172 | 0.0625 | 0.00397 | 0.0536 | 0.00205 | 0.00436 | 0.000339 | 0.00000269 | 0.00561 | ND |
| | Lahaina Intermediate School (AM-03) | <0.0024 | 0.0000495 | 0.000253 | 0.00443 | 0.0000500 | ND | 0.00581 | 0.00120 | 0.0485 | 0.000389 | 0.0282 | 0.00220 | 0.00325 | 0.000257 | 0.00000187 | 0.00266 | ND |
| | Lahaina Recreation Center (AM-07) | <0.0024 | 0.0000789 | 0.000749 | 0.00649 | 0.0000383 | 0.0000665 | 0.00604 | 0.00126 | 0.0183 | 0.000888 | 0.0422 | 0.00105 | 0.00293 | 0.000277 | 0.00000232 | 0.00341 | ND |
| 95% Upper Confidence Limit ² | NA | 0.000170 | 0.000560 | 0.00982 | 0.0000450 | 0.000306 | 0.00644 | 0.00149 | 0.0526 | 0.00128 | 0.0419 | 0.00262 | 0.00417 | 0.000270 | 0.00000240 | 0.00409 | NA | |

Notes:

¹ Asbestos result determined by transmission electron microscopy (TEM) in accordance with ISO Method 10312. PCMe results are presented.

² 95% UCL determined through 'best fit' lognormal or normal parametric statistics via W test

s/cc = structures per cubic centimeter

µg/m³ = micrograms per cubic meter

NA = Not Applicable

ND = Not detected at or above the laboratory reporting limit

* Laboratory data provided in nanograms per cubic meter, however data presented has been converted to micrograms per cubic meter so data was comparable to the Site Screening Action Levels presented in the CAMSP

Appendix 1



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM05-112124-AB | Sample Description: | DL264103 |
| EMSL Sample Number: | 042424386-0001 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7161.4 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 2 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0001 | | | Customer Sample: MFL-AM05-112124-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| B2 | J2 | None Detected | | | | | | | | | |
| B2 | F1 | None Detected | | | | | | | | | |
| B2 | C3 | None Detected | | | | | | | | | |
| B3 | B8 | None Detected | | | | | | | | | |
| B3 | I5 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number: MFL-AM02-112124-AB **Sample Description:** DL264067

EMSL Sample Number: 042424386-0002 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7160.4
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0002 | | | Customer Sample: MFL-AM02-112124-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| B5 | J4 | None Detected | | | | | | | | | |
| B5 | G2 | None Detected | | | | | | | | | |
| B5 | C3 | None Detected | | | | | | | | | |
| B6 | C8 | None Detected | | | | | | | | | |
| B6 | G3 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM03-112124-AB **Sample Description:** DL264089

EMSL Sample Number: 042424386-0003 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7275.1
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0003 | | | Customer Sample: MFL-AM03-112124-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| C1 | A2 | None Detected | | | | | | | | | |
| C1 | D5 | None Detected | | | | | | | | | |
| C1 | H6 | None Detected | | | | | | | | | |
| C2 | H3 | None Detected | | | | | | | | | |
| C2 | C8 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM07-112124-AB **Sample Description:** DL264093

EMSL Sample Number: 042424386-0004 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7166.6
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0004 | | | Customer Sample: MFL-AM07-112124-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| C5 | A7 | None Detected | | | | | | | | | |
| C5 | E9 | None Detected | | | | | | | | | |
| C5 | H10 | None Detected | | | | | | | | | |
| C6 | G4 | None Detected | | | | | | | | | |
| C6 | C5 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-FB01-112124-AB **Sample Description:** DL264082

EMSL Sample Number: 042424386-0005 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L) : 0.0
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 10
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 1
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): N/A **Limit of Detection (Structures/cc):** N/A

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures | - | 0 | 0 | < 22.82 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 22.82 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424386-0005 | | Customer Sample: | | MFL-FB01-112124-AB | | | | | |
|-----------------|--------------|----------------|------------------|------------------|-----------------|--------------------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| D1 | A2 | None Detected | | | | | | | | | |
| D1 | C6 | None Detected | | | | | | | | | |
| D1 | E8 | None Detected | | | | | | | | | |
| D1 | G6 | None Detected | | | | | | | | | |
| D1 | I4 | None Detected | | | | | | | | | |
| D2 | A1 | None Detected | | | | | | | | | |
| D2 | C2 | None Detected | | | | | | | | | |
| D2 | E4 | None Detected | | | | | | | | | |
| D2 | G6 | None Detected | | | | | | | | | |
| D2 | I8 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM05-112224-AB **Sample Description:** DL264061

EMSL Sample Number: 042424386-0006 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7161.5
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0006 | | | Customer Sample: MFL-AM05-112224-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| D5 | A4 | None Detected | | | | | | | | | |
| D5 | D8 | None Detected | | | | | | | | | |
| D5 | J9 | None Detected | | | | | | | | | |
| D6 | H3 | None Detected | | | | | | | | | |
| D6 | B4 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM02-112224-AB | Sample Description: | DL264068 |
| EMSL Sample Number: | 042424386-0007 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 6682.5 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 5 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0009 | Limit of Detection (Structures/cc): | 0.0027 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0007 | | | Customer Sample: MFL-AM02-112224-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| E1 | B9 | None Detected | | | | | | | | | |
| E1 | E4 | None Detected | | | | | | | | | |
| E1 | H6 | None Detected | | | | | | | | | |
| E2 | I5 | None Detected | | | | | | | | | |
| E2 | D6 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM03-112224-AB | Sample Description: | DL264061 |
| EMSL Sample Number: | 042424386-0008 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 6704.2 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 3 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0009 | Limit of Detection (Structures/cc): | 0.0027 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0027 | Not Applicable - 0.0027 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0008 | | | Customer Sample: MFL-AM03-112224-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| E5 | J6 | None Detected | | | | | | | | | |
| E5 | F3 | None Detected | | | | | | | | | |
| E5 | C4 | None Detected | | | | | | | | | |
| E6 | H5 | None Detected | | | | | | | | | |
| E6 | C6 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM07-112224-AB | Sample Description: | DL264102 |
| EMSL Sample Number: | 042424386-0009 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7271.5 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 5 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0009 | | | Customer Sample: MFL-AM07-112224-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| F2 | I5 | None Detected | | | | | | | | | |
| F2 | F2 | None Detected | | | | | | | | | |
| F2 | C3 | None Detected | | | | | | | | | |
| F3 | J4 | None Detected | | | | | | | | | |
| F3 | C2 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-FB01-112224-AB **Sample Description:** DL264072

EMSL Sample Number: 042424386-0010 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L) : 0.0
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 10
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 1
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): N/A **Limit of Detection (Structures/cc):** N/A

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures | - | 0 | 0 | < 22.82 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 22.82 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0010 | | Customer Sample: MFL-FB01-112224-AB | | | | | | | | | |
|--------------------------------|--------------|-------------------------------------|------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| F5 | A9 | None Detected | | | | | | | | | |
| F5 | C10 | None Detected | | | | | | | | | |
| F5 | E7 | None Detected | | | | | | | | | |
| F5 | G10 | None Detected | | | | | | | | | |
| F5 | I8 | None Detected | | | | | | | | | |
| F6 | J3 | None Detected | | | | | | | | | |
| F6 | H3 | None Detected | | | | | | | | | |
| F6 | F2 | None Detected | | | | | | | | | |
| F6 | D4 | None Detected | | | | | | | | | |
| F6 | B6 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number: MFL-AM05-112324-AB **Sample Description:** DL264088

EMSL Sample Number: 042424386-0011 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7196.5
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 2
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0011 | | | Customer Sample: MFL-AM05-112324-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| G1 | A4 | None Detected | | | | | | | | | |
| G1 | D3 | None Detected | | | | | | | | | |
| G1 | H4 | None Detected | | | | | | | | | |
| G2 | C5 | None Detected | | | | | | | | | |
| G2 | G3 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM02-112324-AB **Sample Description:** DL264096

EMSL Sample Number: 042424386-0012 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 6997.7
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0012 | | | Customer Sample: MFL-AM02-112324-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| G5 | A6 | None Detected | | | | | | | | | |
| G5 | D7 | None Detected | | | | | | | | | |
| G5 | G5 | None Detected | | | | | | | | | |
| G6 | H5 | None Detected | | | | | | | | | |
| G6 | B4 | None Detected | | | | | | | | | |

*Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled*



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM03-112324-AB **Sample Description:** DL264084

EMSL Sample Number: 042424386-0013 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7234.0
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0013 | | | Customer Sample: MFL-AM03-112324-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| H1 | I3 | None Detected | | | | | | | | | |
| H1 | F4 | None Detected | | | | | | | | | |
| H1 | B4 | None Detected | | | | | | | | | |
| H2 | B5 | None Detected | | | | | | | | | |
| H2 | G7 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM07-112324-AB | Sample Description: | DL264097 |
| EMSL Sample Number: | 042424386-0014 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7165.6 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 3 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424386
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0014 | | | Customer Sample: MFL-AM07-112324-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| H5 | B5 | None Detected | | | | | | | | | |
| H5 | F3 | None Detected | | | | | | | | | |
| H5 | I6 | None Detected | | | | | | | | | |
| H6 | B7 | None Detected | | | | | | | | | |
| H6 | E3 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-FB01-112324-AB | Sample Description: | DL264081 |
| EMSL Sample Number: | 042424386-0015 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 1 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): | N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures | - | 0 | 0 | < 22.82 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 22.82 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: 042424386
 Client: Tetra Tech
 Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424386-0015 | | Customer Sample: | | MFL-FB01-112324-AB | | | | | |
|-----------------|--------------|----------------|------------------|------------------|-----------------|--------------------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| I1 | A5 | None Detected | | | | | | | | | |
| I1 | C8 | None Detected | | | | | | | | | |
| I1 | E10 | None Detected | | | | | | | | | |
| I1 | G5 | None Detected | | | | | | | | | |
| I1 | I5 | None Detected | | | | | | | | | |
| I2 | A3 | None Detected | | | | | | | | | |
| I2 | C4 | None Detected | | | | | | | | | |
| I2 | E1 | None Detected | | | | | | | | | |
| I2 | G4 | None Detected | | | | | | | | | |
| I2 | I6 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM05-112424-AB | Sample Description: | DL264080 |
| EMSL Sample Number: | 042424386-0016 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7179.7 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 2 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID: 042424386

Client: Tetra Tech

Project ID: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0016 | | Customer Sample: MFL-AM05-112424-AB | | | | | | | | | |
|--------------------------------|--------------|-------------------------------------|------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| I5 | I3 | None Detected | | | | | | | | | |
| I5 | F2 | None Detected | | | | | | | | | |
| I5 | B5 | None Detected | | | | | | | | | |
| I6 | A7 | None Detected | | | | | | | | | |
| I6 | H6 | None Detected | | | | | | | | | |

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM02-112424-AB **Sample Description:** DL264086

EMSL Sample Number: 042424386-0017 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 6970.9
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0017 | | | Customer Sample: MFL-AM02-112424-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| J1 | B5 | None Detected | | | | | | | | | |
| J1 | E2 | None Detected | | | | | | | | | |
| J1 | G6 | None Detected | | | | | | | | | |
| J2 | B6 | None Detected | | | | | | | | | |
| J2 | G8 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM03-112424-AB | Sample Description: | DL264095 |
| EMSL Sample Number: | 042424386-0018 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7424.1 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 4 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 2 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0010 | Limit of Detection (Structures/cc): | 0.0030 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total Amphibole | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Actinolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Amosite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Anthophyllite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Crocidolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Tremolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Other Minerals | - | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total All Structures | - | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Actinolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Amosite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Anthophyllite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Crocidolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Tremolite | ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Other Minerals | - | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 57.06 | < 0.0030 | Not Applicable - 0.0030 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0018 | | | Customer Sample: MFL-AM03-112424-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| J5 | I4 | None Detected | | | | | | | | | |
| J5 | F8 | None Detected | | | | | | | | | |
| J6 | A6 | None Detected | | | | | | | | | |
| J6 | E4 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM07-112424-AB **Sample Description:** DL264078

EMSL Sample Number: 042424386-0019 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7120.2
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0131
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 45.65 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID: 042424386

Client: Tetra Tech

Project ID: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424386-0019 | | Customer Sample: | | MFL-AM07-112424-AB | | | | | |
|-----------------|--------------|----------------|------------------|------------------|-----------------|--------------------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| K1 | I8 | None Detected | | | | | | | | | |
| K1 | F9 | None Detected | | | | | | | | | |
| K1 | C9 | None Detected | | | | | | | | | |
| K2 | C2 | None Detected | | | | | | | | | |
| K2 | G4 | None Detected | | | | | | | | | |

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Project: Maui Fires Lahaina

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-FB01-112424-AB | Sample Description: | DL264065 |
| EMSL Sample Number: | 042424386-0020 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 1 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): | N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures | - | 0 | 0 | < 22.82 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 22.82 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424386**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0020 | | Customer Sample: MFL-FB01-112424-AB | | | | | | | | | |
|---------------------------------------|--------------|--|------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| K5 | A5 | None Detected | | | | | | | | | |
| K5 | C3 | None Detected | | | | | | | | | |
| K5 | E8 | None Detected | | | | | | | | | |
| K5 | G6 | None Detected | | | | | | | | | |
| K5 | I3 | None Detected | | | | | | | | | |
| K6 | J7 | None Detected | | | | | | | | | |
| K6 | H5 | None Detected | | | | | | | | | |
| K6 | F7 | None Detected | | | | | | | | | |
| K6 | D5 | None Detected | | | | | | | | | |
| K6 | B3 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaaslab@EMSL.com

EMSL Order: 042424386
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 11/27/2024 10:00 AM
Analysis Date: 12/03/2024
Report Date: 12/03/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | |
|--|------------------|--|
| Customer Sample Number: | Lab Blank | Sample Description: Lab Blank |
| EMSL Sample Number: | 042424386-0021 | Sample Matrix: Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): 0.0131 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | |
| Estimated Particulate Loading on Filter %: | 1 | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures | - | 0 | 0 | < 22.82 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 22.82 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 22.82 | | | |
| Actinolite | ADX | 0 | 0 | < 22.82 | | | |
| Amosite | ADX | 0 | 0 | < 22.82 | | | |
| Anthophyllite | ADX | 0 | 0 | < 22.82 | | | |
| Crocidolite | ADX | 0 | 0 | < 22.82 | | | |
| Tremolite | ADX | 0 | 0 | < 22.82 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 22.82 | | | |
| Other Minerals | - | 0 | 0 | < 22.82 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 22.82 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: 042424386
 Client: Tetra Tech
 Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424386-0021 | | | Customer Sample: Lab Blank | | | | | | | | |
|--------------------------------|--------------|----------------|----------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| A1 | J2 | None Detected | | | | | | | | | |
| A1 | H3 | None Detected | | | | | | | | | |
| A1 | F2 | None Detected | | | | | | | | | |
| A1 | D6 | None Detected | | | | | | | | | |
| A1 | B3 | None Detected | | | | | | | | | |
| A2 | A7 | None Detected | | | | | | | | | |
| A2 | C10 | None Detected | | | | | | | | | |
| A2 | E10 | None Detected | | | | | | | | | |
| A2 | G8 | None Detected | | | | | | | | | |
| A2 | H10 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077



EMSL Order Number / Lab Use Only

#042424386

PHONE: (800) 220-3675

EMAIL: CinnAslab@EMSL.com

RECEIVED
EMSL
CINNAMINSON, NJ
24 NOV 27 AM 10:11

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

| | | |
|--|--|----------------------------|
| Customer Information | Customer ID: <u>Tetra Tech</u> | Billing ID: |
| | Company Name: <u>Tetra Tech</u> | Company Name: |
| | Contact Name: <u>Chelsea Saber</u> | Billing Contact: |
| | Street Address: <u>1560 Broadway STE 1400</u> | Street Address: |
| | City, State, Zip: <u>Denver, CO 80202</u> Country: <u>US</u> | City, State, Zip: Country: |
| | Phone: <u>703-489-2674</u> | Phone: |
| Email(s) for Report: <u>chelsea.saber@tetra.tech.com</u> | Email(s) for Invoice: | |

Project Information

Project Name/No: Maui Fires Lahaina Purchase Order: 1207085

EMSL LIMS Project ID: (If applicable, EMSL will provide)

US State where samples collected: HI State of Connecticut (CT) must select project location:
 Commercial (Taxable) Residential (Non-Taxable)

Sampled By Name: Nicholas Keeffe Sampled By Signature: [Signature] No. of Samples in Shipment: 20

Turn-Around-Time (TAT)

3 Hour 4-4.5 Hour 6 Hour 24 Hour 32 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air
 NIOSH 7400
 NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)
 PLM EPA 600/R-93/116 (<1%)
 PLM EPA NOB (<1%)
 POINT COUNT
 400 (<0.25%) 1,000 (<0.1%)
 POINT COUNT w/ GRAVIMETRIC
 400 (<0.25%) 1,000 (<0.1%)
 NIOSH 9002 (<1%)
 NYS 198.1 (Friable - NY)
 NYS 198.6 NOB (Non-Friable - NY)
 NYS 198.8 (Vermiculite SM-V)

TEM - Air
 AHERA 40 CFR, Part 763
 NIOSH 7402
 EPA Level II
 ISO 10312*

TEM - Bulk
 TEM EPA NOB
 NYS NOB 198.4 (Non-Friable-NY)
 TEM EPA 600/R-93/116 w Milling Prep (0.1%)

TEM - Settled Dust
 Microvac - ASTM D5755
 Wipe - ASTM D6480
 Qualitative via Filtration Prep
 Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*
 PLM EPA 600/R-93/116 with milling prep (<0.25%)
 PLM EPA 600/R-93/116 with milling prep (<0.1%)
 TEM EPA 600/R-93/116 with milling prep (<0.1%)
 TEM Qualitative via Filtration Prep
 TEM Qualitative via Drop Mount Prep

Other Test (please specify)

*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA) Filter Pore Size (Air Samples) 0.8um 0.45um

| Sample Number | Sample Location / Description | Volume, Area or Homogeneous Area | Date / Time Sampled (Air Monitoring Only) |
|--------------------|-------------------------------|----------------------------------|---|
| MFL-AM05-112124-AB | DL264103 | 7161.432 | 11/21/24 1055 |
| MFL-AM02-112124-AB | DL264067 | 7160.374 | 11/21/24 1108 |
| MFL-AM03-112124-AB | DL264089 | 7275.063 | 11/21/24 1251 |
| MFL-AM07-112124-AB | DL264093 | 7166.587 | 11/21/24 1309 |
| MFL-FB01-112124-AB | DL264082 | 0 | 11/21/24 1200 |
| MFL-AM05-112224-AB | DL264061 | 7161.539 | 11/22/24 1052 |
| MFL-AM02-112224-AB | DL264068 | 6662.507 | 11/22/24 1124 |
| MFL-AM03-112224-AB | DL264071 | 6704.177 | 11/22/24 1250 |

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)
 All samples received acceptable for analysis. (20) [Signature]

Method of Shipment: Fedex Sample Condition Upon Receipt:

Relinquished by: [Signature] Date/Time: 11/25/24 1100 Received by: [Signature] Date/Time: 11-27-24

Controlled Document - COC-05 Asbestos R16 10/28/2021 AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

Stage 1 Data Verification Checklist – Asbestos
HDOH CAB – Ambient Community Air Sampling – Lahaina
Task Order No. 23141

Reviewed by:

Kierra Johnson 12/04/2024 and Shanna Vasser 12/06/2024

Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ

Collection date(s): 11/21/2024 – 11/24/2024

Report No: 42424386

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- NA 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- √ 10. Requested reporting limits are present.
- NA 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- √ 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies: None.

Notes: None.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM05-112524-AB **Sample Description:** DL264085

EMSL Sample Number: 042424729-0001 **Sample Matrix:** Air
 Magnification used for fiber counting: 20,000 **Volume (L):** 7198.2
 Aspect ratio for fiber definition: 3:1 **Area of original collection filter (mm²):** 385
 Minimum Length (µm): ≥ 0.5 **Grid Opening Area (mm²):** 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) **Grid Openings Analyzed:** 5
 Minimum Level of analysis (chrysotile): CD **Analyst:** P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 **Limit of Detection (Structures/cc): 0.0024**

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0001 | | | Customer Sample: MFL-AM05-112524-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| D2 | B4 | None Detected | | | | | | | | | |
| D2 | D7 | None Detected | | | | | | | | | |
| D2 | G4 | None Detected | | | | | | | | | |
| D3 | B4 | None Detected | | | | | | | | | |
| D3 | G2 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM02-112524-AB | Sample Description: | DL264066 |
| EMSL Sample Number: | 042424729-0002 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7278.1 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 5 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424729**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0002 | | | Customer Sample: MFL-AM02-112524-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| B5 | A3 | None Detected | | | | | | | | | |
| B5 | C5 | None Detected | | | | | | | | | |
| B5 | E8 | None Detected | | | | | | | | | |
| B6 | D9 | None Detected | | | | | | | | | |
| B6 | F7 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM03-112524-AB **Sample Description:** DL264064

EMSL Sample Number: 042424729-0003 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7245.9
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0003 | | | Customer Sample: MFL-AM03-112524-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| C1 | J5 | None Detected | | | | | | | | | |
| C1 | G10 | None Detected | | | | | | | | | |
| C1 | C7 | None Detected | | | | | | | | | |
| C2 | H7 | None Detected | | | | | | | | | |
| C2 | E9 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number: MFL-AM07-112524-AB **Sample Description:** DL264109

EMSL Sample Number: 042424729-0004 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7286.0
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0004 | | | Customer Sample: MFL-AM07-112524-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| C5 | B3 | None Detected | | | | | | | | | |
| C5 | F2 | None Detected | | | | | | | | | |
| C5 | H5 | None Detected | | | | | | | | | |
| C6 | F3 | None Detected | | | | | | | | | |
| C6 | B4 | None Detected | | | | | | | | | |

*Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled*

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

| | | |
|--|--------------------|--|
| Customer Sample Number: | MFL-FB01-112524-AB | Sample Description: DL264077 |
| EMSL Sample Number: | 042424729-0005 | Sample Matrix: Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | |
| Estimated Particulate Loading on Filter %: | 1 | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures | - | 0 | 0 | < 23.00 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 23.00 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com / cinnaslab@EMSL.com

EMSL Order ID: 042424729

Client: Tetra Tech

Project ID: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424729-0005 | | | | | Customer Sample: | | MFL-FB01-112524-AB | | |
|-----------------|--------------|----------------|------------------|-------|-----------------|-------|------------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| D1 | A10 | None Detected | | | | | | | | | |
| D1 | C5 | None Detected | | | | | | | | | |
| D1 | E5 | None Detected | | | | | | | | | |
| D1 | G9 | None Detected | | | | | | | | | |
| D1 | I10 | None Detected | | | | | | | | | |
| D2 | A6 | None Detected | | | | | | | | | |
| D2 | C9 | None Detected | | | | | | | | | |
| D2 | E8 | None Detected | | | | | | | | | |
| D2 | G6 | None Detected | | | | | | | | | |
| D2 | I10 | None Detected | | | | | | | | | |

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM05-112624-AB | Sample Description: | DL264087 |
| EMSL Sample Number: | 042424729-0006 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7207.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 3 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0006 | | | Customer Sample: MFL-AM05-112624-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| D5 | A3 | None Detected | | | | | | | | | |
| D5 | D6 | None Detected | | | | | | | | | |
| D5 | H2 | None Detected | | | | | | | | | |
| D6 | C5 | None Detected | | | | | | | | | |
| D6 | G5 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM02-112624-AB **Sample Description:** DL264059

EMSL Sample Number: 042424729-0007 **Sample Matrix:** Air
 Magnification used for fiber counting: 20,000 **Volume (L):** 7111.3
 Aspect ratio for fiber definition: 3:1 **Area of original collection filter (mm²):** 385
 Minimum Length (µm): ≥ 0.5 **Grid Opening Area (mm²):** 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) **Grid Openings Analyzed:** 5
 Minimum Level of analysis (chrysotile): CD **Analyst:** P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0007 | | | Customer Sample: MFL-AM02-112624-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| E1 | J7 | None Detected | | | | | | | | | |
| E1 | F9 | None Detected | | | | | | | | | |
| E1 | C6 | None Detected | | | | | | | | | |
| E2 | C6 | None Detected | | | | | | | | | |
| E2 | H9 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM03-112624-AB | Sample Description: | DL698282 |
| EMSL Sample Number: | 042424729-0008 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7185.1 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 3 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0008 | | | Customer Sample: MFL-AM03-112624-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| E5 | A7 | None Detected | | | | | | | | | |
| E5 | D6 | None Detected | | | | | | | | | |
| E5 | G5 | None Detected | | | | | | | | | |
| E6 | A5 | None Detected | | | | | | | | | |
| E6 | E7 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM07-112624-AB **Sample Description:** DL698139

EMSL Sample Number: 042424729-0009 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7153.8
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 5
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0009 | | | Customer Sample: MFL-AM07-112624-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| F1 | J4 | None Detected | | | | | | | | | |
| F1 | G1 | None Detected | | | | | | | | | |
| F1 | D4 | None Detected | | | | | | | | | |
| F2 | C8 | None Detected | | | | | | | | | |
| F2 | C5 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-FB01-112624-AB | Sample Description: | DL698004 |
| EMSL Sample Number: | 042424729-0010 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 1 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): | N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures | - | 0 | 0 | < 23.00 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 23.00 | | | |

Comment

Robyn Ray
 Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0010 | | Customer Sample: MFL-FB01-112624-AB | | | | | | | | | |
|--------------------------------|--------------|-------------------------------------|------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| F5 | J5 | None Detected | | | | | | | | | |
| F5 | H2 | None Detected | | | | | | | | | |
| F5 | F1 | None Detected | | | | | | | | | |
| F5 | D6 | None Detected | | | | | | | | | |
| F5 | B2 | None Detected | | | | | | | | | |
| F6 | J10 | None Detected | | | | | | | | | |
| F6 | H7 | None Detected | | | | | | | | | |
| F6 | F2 | None Detected | | | | | | | | | |
| F6 | D7 | None Detected | | | | | | | | | |
| F6 | B2 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | | |
|--|---------------------------|--|-----------------|
| Customer Sample Number: | MFL-AM05-112724-AB | Sample Description: | DL698343 |
| EMSL Sample Number: | 042424729-0011 | Sample Matrix: | Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): | 7199.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): | 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): | 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: | 5 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: | P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | | |
| Estimated Particulate Loading on Filter %: | 5 | | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | | |
| Analytical Sensitivity (Structures/cc): | 0.0008 | Limit of Detection (Structures/cc): | 0.0024 |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424729**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0011 | | | Customer Sample: MFL-AM05-112724-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| G1 | I2 | None Detected | | | | | | | | | |
| G1 | G4 | None Detected | | | | | | | | | |
| G1 | D10 | None Detected | | | | | | | | | |
| G2 | C2 | None Detected | | | | | | | | | |
| G2 | H5 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM02-112724-AB **Sample Description:** DL698318

EMSL Sample Number: 042424729-0012 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 6859.1
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0009 Limit of Detection (Structures/cc): 0.0027

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0027 | Not Applicable - 0.0027 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0012 | | | Customer Sample: MFL-AM02-112724-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| G5 | J7 | None Detected | | | | | | | | | |
| G5 | H5 | None Detected | | | | | | | | | |
| G5 | C4 | None Detected | | | | | | | | | |
| G6 | I4 | None Detected | | | | | | | | | |
| G6 | G8 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number: MFL-AM03-112724-AB **Sample Description:** DL698356

EMSL Sample Number: 042424729-0013 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7184.8
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 2
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: **042424729**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0013 | | | Customer Sample: MFL-AM03-112724-AB | | | | | | | | |
|---------------------------------------|--------------|----------------|--|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| H1 | B6 | None Detected | | | | | | | | | |
| H1 | E9 | None Detected | | | | | | | | | |
| H1 | H5 | None Detected | | | | | | | | | |
| H2 | C6 | None Detected | | | | | | | | | |
| H2 | J8 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-AM07-112724-AB **Sample Description:** DL698168

EMSL Sample Number: 042424729-0014 Sample Matrix: Air
 Magnification used for fiber counting: 20,000 Volume (L): 7130.8
 Aspect ratio for fiber definition: 3:1 Area of original collection filter (mm²): 385
 Minimum Length (µm): ≥ 0.5 Grid Opening Area (mm²): 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) Grid Openings Analyzed: 5
 Minimum Level of analysis (chrysotile): CD Analyst: P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 3
 Target Analytical Sensitivity (Structures/cc): 0.001
Analytical Sensitivity (Structures/cc): 0.0008 Limit of Detection (Structures/cc): 0.0024

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Actinolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Amosite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Anthophyllite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Crocidolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Tremolite | ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Other Minerals | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |
| Total All Structures (PCMe) | - | 0 | 0 | < 46.00 | < 0.0024 | Not Applicable - 0.0024 | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order ID: 042424729
Client: Tetra Tech
Project ID: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: 042424729-0014 | | | Customer Sample: MFL-AM07-112724-AB | | | | | | | | |
|--------------------------------|--------------|----------------|-------------------------------------|-------|-----------------|-------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| H5 | I2 | None Detected | | | | | | | | | |
| H5 | G5 | None Detected | | | | | | | | | |
| H5 | D7 | None Detected | | | | | | | | | |
| H6 | C5 | None Detected | | | | | | | | | |
| H6 | I7 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-FB01-112724-AB **Sample Description:** DL698021

EMSL Sample Number: 042424729-0015 **Sample Matrix:** Air
 Magnification used for fiber counting: 20,000 **Volume (L):** 0.0
 Aspect ratio for fiber definition: 3:1 **Area of original collection filter (mm²):** 385
 Minimum Length (µm): ≥ 0.5 **Grid Opening Area (mm²):** 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) **Grid Openings Analyzed:** 10
 Minimum Level of analysis (chrysotile): CD **Analyst:** P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 1
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): N/A **Limit of Detection (Structures/cc):** N/A

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures | - | 0 | 0 | < 23.00 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 23.00 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

http://www.EMSL.com / cinnaslab@EMSL.com

EMSL Order ID: 042424729

Client: Tetra Tech

Project ID: Maui Fires Lahaina

ISO 10312 Determination of Asbestos Fibers Direct Transfer Transmission Electron Microscopy

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424729-0015 | | | | | Customer Sample: | | MFL-FB01-112724-AB | | |
|-----------------|--------------|----------------|------------------|-------|-----------------|-------|------------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| I1 | J6 | None Detected | | | | | | | | | |
| I1 | H10 | None Detected | | | | | | | | | |
| I1 | F1 | None Detected | | | | | | | | | |
| I1 | D2 | None Detected | | | | | | | | | |
| I1 | B3 | None Detected | | | | | | | | | |
| I2 | J3 | None Detected | | | | | | | | | |
| I2 | H10 | None Detected | | | | | | | | | |
| I2 | F7 | None Detected | | | | | | | | | |
| I2 | D8 | None Detected | | | | | | | | | |
| I2 | B7 | None Detected | | | | | | | | | |

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled

**EMSL Analytical, Inc.**

200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/06/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Customer Sample Number: MFL-LB01-112624-AB **Sample Description:** DL698077

EMSL Sample Number: 042424729-0016 **Sample Matrix:** Air
 Magnification used for fiber counting: 20,000 **Volume (L):** 0.0
 Aspect ratio for fiber definition: 3:1 **Area of original collection filter (mm²):** 385
 Minimum Length (µm): ≥ 0.5 **Grid Opening Area (mm²):** 0.0130
 Chi² Test for Random Distribution on Filter: N/A (N/A) **Grid Openings Analyzed:** 10
 Minimum Level of analysis (chrysotile): CD **Analyst:** P. Harrison
 Minimum Level of analysis (amphibole): ADX

Estimated Particulate Loading on Filter %: 1
 Target Analytical Sensitivity (Structures/cc): 0.001

Analytical Sensitivity (Structures/cc): N/A **Limit of Detection (Structures/cc):** N/A

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures | - | 0 | 0 | < 23.00 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|-------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 23.00 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: **042424729**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424729-0016 | | | | | | Customer Sample: | | MFL-LB01-112624-AB | |
|-----------------|--------------|----------------|------------------|-------|-----------------|-------|-------------|------------------|-----------------------|--------------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| I5 | A4 | None Detected | | | | | | | | | |
| I5 | C1 | None Detected | | | | | | | | | |
| I5 | E3 | None Detected | | | | | | | | | |
| I5 | G2 | None Detected | | | | | | | | | |
| I5 | I6 | None Detected | | | | | | | | | |
| I6 | J6 | None Detected | | | | | | | | | |
| I6 | H8 | None Detected | | | | | | | | | |
| I6 | F10 | None Detected | | | | | | | | | |
| I6 | D9 | None Detected | | | | | | | | | |
| I6 | B6 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042424729
Customer ID: TTDC42
Customer PO: 1207085
Project ID: N/A

Attn: Chelsea Saber
 Tetra Tech
 1560 Broadway, Suite 1400
 Denver, CO, 80202

Phone: (703) 489-2674
Fax: N/A
Received Date: 12/04/2024 09:30 AM
Analysis Date: 12/05/2024
Report Date: 12/07/2024

Project: Maui Fires Lahaina

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

| | | |
|--|------------------|--|
| Customer Sample Number: | Lab Blank | Sample Description: Lab Blank |
| EMSL Sample Number: | 042424729-0017 | Sample Matrix: Air |
| Magnification used for fiber counting: | 20,000 | Volume (L): 0.0 |
| Aspect ratio for fiber definition: | 3:1 | Area of original collection filter (mm ²): 385 |
| Minimum Length (µm): | ≥ 0.5 | Grid Opening Area (mm ²): 0.0130 |
| Chi ² Test for Random Distribution on Filter: | N/A (N/A) | Grid Openings Analyzed: 10 |
| Minimum Level of analysis (chrysotile): | CD | Analyst: P. Harrison |
| Minimum Level of analysis (amphibole): | ADX | |
| Estimated Particulate Loading on Filter %: | 1 | |
| Target Analytical Sensitivity (Structures/cc): | 0.001 | |
| Analytical Sensitivity (Structures/cc): | N/A | Limit of Detection (Structures/cc): N/A |

| TOTAL STRUCTURES (All Sizes) | | | | | | | |
|----------------------------------|------------------|---------------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Structures Detected | | Density (S/mm ²) | Concentration (S/cc) | 95 % Confidence Interval (S/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures | - | 0 | 0 | < 23.00 | | | |

| PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio) | | | | | | | |
|---|------------------|-----------------|----------|------------------------------|----------------------|---------------------------------|-------|
| | Minimum ID Level | Fibers Detected | | Density (F/mm ²) | Concentration (F/cc) | 95 % Confidence Interval (F/cc) | |
| | | Primary | Total | | | Lower | Upper |
| Total Chrysotile (PCMe) | CD | 0 | 0 | < 23.00 | | | |
| Total Amphibole (PCMe) | ADX | 0 | 0 | < 23.00 | | | |
| Actinolite | ADX | 0 | 0 | < 23.00 | | | |
| Amosite | ADX | 0 | 0 | < 23.00 | | | |
| Anthophyllite | ADX | 0 | 0 | < 23.00 | | | |
| Crocidolite | ADX | 0 | 0 | < 23.00 | | | |
| Tremolite | ADX | 0 | 0 | < 23.00 | | | |
| Total Asbestos Structures (PCMe) | CD/ADX | 0 | 0 | < 23.00 | | | |
| Other Minerals | - | 0 | 0 | < 23.00 | | | |
| Total All Structures (PCMe) | - | 0 | 0 | < 23.00 | | | |

Comment

Approved Signatory

Concentrations and 95% Confidence Intervals are based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without the written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc.
 200 Route 130 North Cinnaminson, NJ 08077
 Tel/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order ID: **042424729**
 Client: **Tetra Tech**
 Project ID: **Maui Fires Lahaina**

**ISO 10312 Determination of Asbestos Fibers
 Direct Transfer Transmission Electron Microscopy**

Analytical Bench Sheet Data

| EMSL Sample ID: | | 042424729-0017 | | Customer Sample: | | Lab Blank | | | | | |
|-----------------|--------------|----------------|------------------|------------------|-----------------|-----------|-------------|--------------|-----------------------|--------------|--------------------|
| Grid ID | Grid Opening | Structure Type | Structure Number | | Dimensions (µm) | | Level of ID | Mineral Type | Additional Mineral ID | Image Number | Structure Comments |
| | | | Primary | Total | Length | Width | | | | | |
| A1 | A3 | None Detected | | | | | | | | | |
| A1 | C4 | None Detected | | | | | | | | | |
| A1 | E10 | None Detected | | | | | | | | | |
| A1 | F4 | None Detected | | | | | | | | | |
| A1 | I4 | None Detected | | | | | | | | | |
| A2 | J9 | None Detected | | | | | | | | | |
| A2 | H6 | None Detected | | | | | | | | | |
| A2 | F2 | None Detected | | | | | | | | | |
| A2 | D7 | None Detected | | | | | | | | | |
| A2 | B10 | None Detected | | | | | | | | | |

Abbreviations used:
 XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled
 XCGBLD - Crosses Countable Grid Bar Length Doubled



Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

#042424729

PHONE: (800) 220-3675
EMAIL: CinnAslab@EMSL.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

| | | | |
|-----------------------------|-----------------------------|----------------------------|--|
| Customer Information | | Billing Information | |
| Customer ID: | | Billing ID: | |
| Company Name: | Tetra Tech | Company Name: | |
| Contact Name: | Chelsea Saber | Billing Contact: | |
| Street Address: | 1560 Broadway STE 1400 | Street Address: | |
| City, State, Zip: | Denver, CO 80202 | City, State, Zip: | |
| Country: | US | Country: | |
| Phone: | 203-489-2674 | Phone: | |
| Email(s) for Report: | Chelsea.saber@tetratech.com | Email(s) for Invoice: | |

| | | | |
|----------------------------|--------------------|---|--|
| Project Information | | Purchase Order: | 1207085 |
| Project Name/No: | Maui Fires Lahaina | US State where samples collected: | HI |
| EMSL LIMS Project ID: | | State of Connecticut (CT) must select project location: | <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable) |
| Sampled By Name: | Nicholas Keefe | Sampled By Signature: | <i>Nicholas Keefe</i> |
| | | No. of Samples in Shipment: | 16 |

Turn-Around-Time (TAT)

3 Hour
 4-4.5 Hour (AHERA ONLY)
 6 Hour
 24 Hour
 32 Hour
 48 Hour
 72 Hour
 96 Hour
 1 Week
 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

| | | |
|--|---|--|
| <p>PCM Air</p> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> NIOSH 7400 w/ 8hr. TWA <p>PLM - Bulk (reporting limit)</p> <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) <input type="checkbox"/> POINT COUNT <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) POINT COUNT w/ GRAVIMETRIC <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NYS 198.1 (Friable - NY) <input type="checkbox"/> NYS 198.6 NOB (Non-Friable - NY) <input type="checkbox"/> NYS 198.8 (Vermiculite SM-V) | <p>TEM - Air</p> <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input checked="" type="checkbox"/> ISO 10312* <p>TEM - Bulk</p> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (Non-Friable-NY) <input type="checkbox"/> TEM EPA 600/R-93/116 w Milling Prep (0.1%) <p>Other Test (please specify)</p> | <p>TEM - Settled Dust</p> <input type="checkbox"/> Microvac - ASTM D5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Qualitative via Filtration Prep <input type="checkbox"/> Qualitative via Drop Mount Prep <p>Soil - Rock - Vermiculite (reporting limit)*</p> <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep |
|--|---|--|

*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA) Filter Pore Size (Air Samples) 0.8um 0.45um

| Sample Number | Sample Location / Description | Volume, Area or Homogeneous Area | Date / Time Sampled (Air Monitoring Only) |
|--------------------|-------------------------------|----------------------------------|---|
| MFL-AM05-112524-AB | DL264085 | 7198.237 | 11/25/24 1056 |
| MFL-AM02-112524-AB | DL264066 | 7278.060 | 11/25/24 1115 |
| MFL-AM03-112524-AB | DL264064 | 7245.966 | 11/25/24 1304 |
| MFL-AM07-112524-AB | DL264109 | 7285.960 | 11/25/24 1324 |
| MFL-FB01-112524-AB | DL264077 | 0 | 11/25/24 1200 |
| MFL-AM05-112624-AB | DL264087 | 7207.001 | 11/26/24 1054 |
| MFL-AM02-112624-AB | DL264059 | 7111.312 | 11/26/24 1110 |
| MFL-AM03-112624-AB | DL698282 | 7185.088 | 11/26/24 1255 |

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

All samples received acceptable for analysis.

| | | | |
|---------------------|-----------------------|--------------------------------|--------------|
| Method of Shipment: | Fedex | Sample Condition Upon Receipt: | |
| Relinquished by: | <i>Nicholas Keefe</i> | Received by: | <i>MT FT</i> |
| Date/Time: | 11/30/24 1100 | Date/Time: | 12/4/24 930 |
| Relinquished by: | | Received by: | |
| Date/Time: | | Date/Time: | |

Controlled Document - COC-05 Asbestos R16 10/28/2021

AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

Stage 1 Data Verification Checklist – Asbestos
HDOH CAB – Ambient Community Air Sampling – Lahaina
Task Order No. 23141

Reviewed by:

Kierra Johnson 12/10/2024 and Shanna Vasser 12/11/2024

Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ

Collection date(s): 11/25/2024 – 11/27/2024

Report No: 42424729

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- NA 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- √ 10. Requested reporting limits are present.
- NA 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- √ 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies: None.

Notes: None.



Eastern Research Group
601 Keystone Park Drive
Suite 700
Morrisville, NC 27560

December 12, 2024

Ms. Chelsea Saber
Tetra Tech, Inc.
1777 Sentry Pkwy, Bldg 12
Blue Bell, PA 19422
Project Name: Lahaina fires

Dear Ms. Chelsea Saber,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 12/05/24 11:40.

Values below the MDL for QC results in this report are recorded as ND, however the actual values are reported in the accompanying Excel report with a "U" flag (Under the detection limit). The actual values are reported in AQS.

This test is accredited under the 2016 TNI Standard for Environmental Laboratories (FL DOH Certification # E87673). All analyses were performed as described in the US EPA-approved QAPP, under the contract for National Hazardous Air Pollutant Support (US EPA Contract No. 68HERH22D0002). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift
Program Manager
julie.swift@erg.com

The information contained in this report and its attachment(s) are intended only for the use of the individual to whom it is addressed and may contain information that is privileged, confidential, or exempt from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report is strictly prohibited. If you have received this report in error, please notify julie.swift@erg.com and delete the report without retaining any copies.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
1777 Sentry Pkwy, Bldg 12
Blue Bell, PA 19422

ATTN: Ms. Chelsea Saber

PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001

REPORTED: 12/12/24 08:42

SUBMITTED: 12/05/24

AQS SITE CODE:

SITE CODE: Lahaina fires

ANALYTICAL REPORT FOR SAMPLES

| <u>SampleName</u> | <u>LabNumber</u> | <u>Matrix</u> | <u>Sampled</u> | <u>Received</u> |
|--------------------|------------------|---------------|----------------|-----------------|
| MFL-AM05-112124-HM | 4120531-01 | Air | 11/21/24 23:59 | 12/05/24 11:40 |
| MFL-AM02-112124-HM | 4120531-02 | Air | 11/21/24 23:59 | 12/05/24 11:40 |
| MFL-AM03-112124-HM | 4120531-03 | Air | 11/21/24 23:59 | 12/05/24 11:40 |
| MFL-AM07-112124-HM | 4120531-04 | Air | 11/21/24 23:59 | 12/05/24 11:40 |
| MFL-AM05-112224-HM | 4120531-05 | Air | 11/22/24 23:59 | 12/05/24 11:40 |
| MFL-AM02-112224-HM | 4120531-06 | Air | 11/22/24 23:59 | 12/05/24 11:40 |
| MFL-AM03-112224-HM | 4120531-07 | Air | 11/22/24 23:59 | 12/05/24 11:40 |
| MFL-AM07-112224-HM | 4120531-08 | Air | 11/22/24 23:59 | 12/05/24 11:40 |
| MFL-FB01-112224-HM | 4120531-09 | Air | 11/22/24 00:00 | 12/05/24 11:40 |
| MFL-AM05-112324-HM | 4120531-10 | Air | 11/23/24 23:59 | 12/05/24 11:40 |
| MFL-AM02-112324-HM | 4120531-11 | Air | 11/23/24 23:59 | 12/05/24 11:40 |
| MFL-AM03-112324-HM | 4120531-12 | Air | 11/23/24 23:59 | 12/05/24 11:40 |
| MFL-AM07-112324-HM | 4120531-13 | Air | 11/23/24 23:59 | 12/05/24 11:40 |
| MFL-AM05-112424-HM | 4120531-14 | Air | 11/24/24 23:59 | 12/05/24 11:40 |
| MFL-AM02-112424-HM | 4120531-15 | Air | 11/24/24 23:59 | 12/05/24 11:40 |
| MFL-AM03-112424-HM | 4120531-16 | Air | 11/24/24 23:59 | 12/05/24 11:40 |
| MFL-AM07-112424-HM | 4120531-17 | Air | 11/24/24 23:59 | 12/05/24 11:40 |
| MFL-FB01-112424-HM | 4120531-18 | Air | 11/24/24 00:00 | 12/05/24 11:40 |
| MFL-AM05-112524-HM | 4120531-19 | Air | 11/25/24 23:59 | 12/05/24 11:40 |
| MFL-AM02-112524-HM | 4120531-20 | Air | 11/25/24 23:59 | 12/05/24 11:40 |
| MFL-AM03-112524-HM | 4120531-21 | Air | 11/25/24 23:59 | 12/05/24 11:40 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
ATTN: Ms. Chelsea Saber

FILE #: 4205.00.003.001
REPORTED: 12/12/24 08:42
SUBMITTED: 12/05/24
AQS SITE CODE:

| PHONE: (703) 885-5495 | FAX: | | | SITE CODE: | Lahaina fires |
|------------------------------|-------------|-----|----------------|-------------------|---------------|
| MFL-AM07-112524-HM | 4120531-22 | Air | 11/25/24 23:59 | 12/05/24 11:40 | |
| MFL-AM05-112624-HM | 4120531-23 | Air | 11/26/24 23:59 | 12/05/24 11:40 | |
| MFL-AM02-112624-HM | 4120531-24 | Air | 11/26/24 23:59 | 12/05/24 11:40 | |
| MFL-AM03-112624-HM | 4120531-25 | Air | 11/26/24 23:59 | 12/05/24 11:40 | |
| MFL-AM07-112624-HM | 4120531-26 | Air | 11/26/24 23:59 | 12/05/24 11:40 | |
| MFL-FB01-112624-HM | 4120531-27 | Air | 11/26/24 00:00 | 12/05/24 11:40 | |
| MFL-LB01-112624-HM | 4120531-28 | Air | 11/26/24 00:00 | 12/05/24 11:40 | |
| MFL-AM05-112724-HM | 4120531-29 | Air | 11/27/24 23:59 | 12/05/24 11:40 | |
| MFL-AM02-112724-HM | 4120531-30 | Air | 11/27/24 23:59 | 12/05/24 11:40 | |
| MFL-AM03-112724-HM | 4120531-31 | Air | 11/27/24 23:59 | 12/05/24 11:40 | |
| MFL-AM07-112724-HM | 4120531-32 | Air | 11/27/24 23:59 | 12/05/24 11:40 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112124-HM **Lab ID:** 4120531-01 **Sampled:** 11/21/24 23:59
Matrix: Air **Sample Volume:** 1923.618 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 00:51
Comments: Q8537023 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.140 | SL | 0.0326 |
| Arsenic | 7440-38-2 | 0.282 | | 0.00793 |
| Barium | 7440-39-3 | 5.45 | QB-01 | 0.905 |
| Beryllium | 7440-41-7 | 0.0124 | | 0.00271 |
| Cadmium | 7440-43-9 | 0.0127 | U | 0.0627 |
| Chromium | 7440-47-3 | 3.33 | | 1.87 |
| Cobalt | 7440-48-4 | 0.524 | | 0.0369 |
| Copper | 7440-50-8 | 54.5 | | 2.22 |
| Lead | 7439-92-1 | 0.674 | | 0.181 |
| Manganese | 7439-96-5 | 14.4 | | 1.60 |
| Molybdenum | 7439-98-7 | 2.87 | | 0.304 |
| Nickel | 7440-02-0 | 1.94 | | 0.551 |
| Selenium | 7782-49-2 | 0.166 | | 0.00758 |
| Thallium | 7440-28-0 | 0.00140 | | 4.98E-4 |
| Vanadium | 7440-62-2 | 1.63 | | 0.0447 |
| Zinc | 7440-66-6 | 16.6 | U | 65.0 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112124-HM **Lab ID:** 4120531-02 **Sampled:** 11/21/24 23:59
Matrix: Air **Sample Volume:** 2091.231 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 01:07
Comments: Q8537022 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.238 | SL | 0.0300 |
| Arsenic | 7440-38-2 | 0.398 | | 0.00729 |
| Barium | 7440-39-3 | 10.5 | QB-01 | 0.832 |
| Beryllium | 7440-41-7 | 0.0287 | | 0.00249 |
| Cadmium | 7440-43-9 | 0.0186 | U | 0.0577 |
| Chromium | 7440-47-3 | 4.85 | | 1.72 |
| Cobalt | 7440-48-4 | 1.11 | | 0.0339 |
| Copper | 7440-50-8 | 49.0 | | 2.05 |
| Lead | 7439-92-1 | 1.03 | | 0.166 |
| Manganese | 7439-96-5 | 30.4 | | 1.47 |
| Molybdenum | 7439-98-7 | 1.74 | | 0.279 |
| Nickel | 7440-02-0 | 3.11 | | 0.507 |
| Selenium | 7782-49-2 | 0.241 | | 0.00697 |
| Thallium | 7440-28-0 | 0.00192 | | 4.58E-4 |
| Vanadium | 7440-62-2 | 3.57 | | 0.0412 |
| Zinc | 7440-66-6 | 21.7 | U | 59.8 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112124-HM **Lab ID:** 4120531-03 **Sampled:** 11/21/24 23:59
Matrix: Air **Sample Volume:** 1950.396 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 01:23
Comments: Q8537021 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0819 | SL | 0.0322 |
| Arsenic | 7440-38-2 | 0.141 | | 0.00782 |
| Barium | 7440-39-3 | 2.81 | QB-01 | 0.893 |
| Beryllium | 7440-41-7 | 0.0208 | | 0.00267 |
| Cadmium | 7440-43-9 | 0.00662 | U | 0.0618 |
| Chromium | 7440-47-3 | 2.31 | | 1.84 |
| Cobalt | 7440-48-4 | 0.378 | | 0.0364 |
| Copper | 7440-50-8 | 60.1 | | 2.19 |
| Lead | 7439-92-1 | 0.239 | | 0.179 |
| Manganese | 7439-96-5 | 9.63 | | 1.58 |
| Molybdenum | 7439-98-7 | 2.40 | | 0.299 |
| Nickel | 7440-02-0 | 1.20 | | 0.544 |
| Selenium | 7782-49-2 | 0.158 | | 0.00747 |
| Thallium | 7440-28-0 | 0.00106 | | 4.91E-4 |
| Vanadium | 7440-62-2 | 0.938 | | 0.0441 |
| Zinc | 7440-66-6 | 7.75 | U | 64.1 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112124-HM **Lab ID:** 4120531-04 **Sampled:** 11/21/24 23:59
Matrix: Air **Sample Volume:** 1763.668 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 01:37
Comments: Q8537020 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0819 | SL | 0.0356 |
| Arsenic | 7440-38-2 | 0.474 | | 0.00864 |
| Barium | 7440-39-3 | 5.74 | QB-01 | 0.987 |
| Beryllium | 7440-41-7 | 0.0220 | | 0.00295 |
| Cadmium | 7440-43-9 | 0.00971 | U | 0.0684 |
| Chromium | 7440-47-3 | 3.39 | | 2.04 |
| Cobalt | 7440-48-4 | 0.744 | | 0.0402 |
| Copper | 7440-50-8 | 30.2 | | 2.43 |
| Lead | 7439-92-1 | 0.474 | | 0.197 |
| Manganese | 7439-96-5 | 25.6 | | 1.74 |
| Molybdenum | 7439-98-7 | 1.41 | | 0.331 |
| Nickel | 7440-02-0 | 1.83 | | 0.601 |
| Selenium | 7782-49-2 | 0.185 | | 0.00827 |
| Thallium | 7440-28-0 | 0.00158 | | 5.43E-4 |
| Vanadium | 7440-62-2 | 1.97 | | 0.0488 |
| Zinc | 7440-66-6 | 11.1 | U | 70.8 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112224-HM **Lab ID:** 4120531-05 **Sampled:** 11/22/24 23:59
Matrix: Air **Sample Volume:** 1913.089 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/06/24 22:10
Comments: Q8537017 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.104 | SL | 0.0328 | |
| Arsenic | 7440-38-2 | 0.212 | | 0.00797 | |
| Barium | 7440-39-3 | 4.57 | QB-01 | 0.910 | |
| Beryllium | 7440-41-7 | 0.0125 | | 0.00272 | |
| Cadmium | 7440-43-9 | 0.0114 | U | 0.0630 | |
| Chromium | 7440-47-3 | 2.71 | | 1.88 | |
| Cobalt | 7440-48-4 | 0.474 | | 0.0371 | |
| Copper | 7440-50-8 | 50.2 | | 2.24 | |
| Lead | 7439-92-1 | 0.671 | | 0.182 | |
| Manganese | 7439-96-5 | 12.8 | | 1.61 | |
| Molybdenum | 7439-98-7 | 2.57 | | 0.305 | |
| Nickel | 7440-02-0 | 1.68 | | 0.554 | |
| Selenium | 7782-49-2 | 0.157 | | 0.00762 | |
| Thallium | 7440-28-0 | 0.00144 | | 5.01E-4 | |
| Vanadium | 7440-62-2 | 1.53 | | 0.0450 | |
| Zinc | 7440-66-6 | 13.9 | U | 65.3 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112224-HM **Lab ID:** 4120531-06 **Sampled:** 11/22/24 23:59
Matrix: Air **Sample Volume:** 2116.989 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 01:51
Comments: Q8537016 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.452 | SL | 0.0297 |
| Arsenic | 7440-38-2 | 0.652 | | 0.00720 |
| Barium | 7440-39-3 | 13.5 | QB-01 | 0.822 |
| Beryllium | 7440-41-7 | 0.0415 | | 0.00246 |
| Cadmium | 7440-43-9 | 0.250 | | 0.0569 |
| Chromium | 7440-47-3 | 5.63 | | 1.70 |
| Cobalt | 7440-48-4 | 1.36 | | 0.0335 |
| Copper | 7440-50-8 | 55.8 | | 2.02 |
| Lead | 7439-92-1 | 2.33 | | 0.164 |
| Manganese | 7439-96-5 | 40.9 | | 1.45 |
| Molybdenum | 7439-98-7 | 2.06 | | 0.276 |
| Nickel | 7440-02-0 | 3.81 | | 0.501 |
| Selenium | 7782-49-2 | 0.277 | | 0.00689 |
| Thallium | 7440-28-0 | 0.00242 | | 4.53E-4 |
| Vanadium | 7440-62-2 | 4.28 | | 0.0407 |
| Zinc | 7440-66-6 | 40.9 | U | 59.0 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112224-HM **Lab ID:** 4120531-07 **Sampled:** 11/22/24 23:59
Matrix: Air **Sample Volume:** 1897.008 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 02:09
Comments: Q8537015 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0712 | SL | 0.0331 |
| Arsenic | 7440-38-2 | 0.213 | | 0.00804 |
| Barium | 7440-39-3 | 4.56 | QB-01 | 0.918 |
| Beryllium | 7440-41-7 | 0.0354 | | 0.00274 |
| Cadmium | 7440-43-9 | 0.0145 | U | 0.0636 |
| Chromium | 7440-47-3 | 3.73 | | 1.90 |
| Cobalt | 7440-48-4 | 0.711 | | 0.0374 |
| Copper | 7440-50-8 | 59.0 | | 2.26 |
| Lead | 7439-92-1 | 0.371 | | 0.184 |
| Manganese | 7439-96-5 | 17.2 | | 1.62 |
| Molybdenum | 7439-98-7 | 2.71 | | 0.308 |
| Nickel | 7440-02-0 | 2.35 | | 0.559 |
| Selenium | 7782-49-2 | 0.203 | | 0.00768 |
| Thallium | 7440-28-0 | 0.00154 | | 5.05E-4 |
| Vanadium | 7440-62-2 | 1.94 | | 0.0454 |
| Zinc | 7440-66-6 | 10.2 | U | 65.9 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112224-HM **Lab ID:** 4120531-08 **Sampled:** 11/22/24 23:59
Matrix: Air **Sample Volume:** 1835.768 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 02:26
Comments: Q8537013 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0819 | SL | 0.0342 |
| Arsenic | 7440-38-2 | 0.910 | | 0.00830 |
| Barium | 7440-39-3 | 15.7 | QB-01 | 0.948 |
| Beryllium | 7440-41-7 | 0.0760 | | 0.00284 |
| Cadmium | 7440-43-9 | 0.0373 | U | 0.0657 |
| Chromium | 7440-47-3 | 7.34 | | 1.96 |
| Cobalt | 7440-48-4 | 2.02 | | 0.0386 |
| Copper | 7440-50-8 | 29.6 | | 2.33 |
| Lead | 7439-92-1 | 1.65 | | 0.190 |
| Manganese | 7439-96-5 | 70.2 | | 1.68 |
| Molybdenum | 7439-98-7 | 1.26 | | 0.318 |
| Nickel | 7440-02-0 | 4.31 | | 0.578 |
| Selenium | 7782-49-2 | 0.385 | | 0.00794 |
| Thallium | 7440-28-0 | 0.00344 | | 5.22E-4 |
| Vanadium | 7440-62-2 | 5.19 | | 0.0469 |
| Zinc | 7440-66-6 | 18.9 | U | 68.1 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-FB01-112224-HM **Lab ID:** 4120531-09 **Sampled:** 11/22/24 00:00
Matrix: Air **Sample Volume:** 1913.089 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 02:43
Comments: Q8537004 Field Blank - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|--------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0210 | SL, U | 0.0328 | |
| Arsenic | 7440-38-2 | 0.0140 | FB-01 | 0.00797 | |
| Barium | 7440-39-3 | 0.925 | FB-01, QB-01 | 0.910 | |
| Beryllium | 7440-41-7 | 9.03E-4 | U | 0.00272 | |
| Cadmium | 7440-43-9 | 0.00215 | U | 0.0630 | |
| Chromium | 7440-47-3 | 0.846 | U | 1.88 | |
| Cobalt | 7440-48-4 | 0.0224 | U | 0.0371 | |
| Copper | 7440-50-8 | 0.942 | U | 2.24 | |
| Lead | 7439-92-1 | 0.0322 | U | 0.182 | |
| Manganese | 7439-96-5 | 0.699 | U | 1.61 | |
| Molybdenum | 7439-98-7 | 0.185 | U | 0.305 | |
| Nickel | 7440-02-0 | 0.414 | U | 0.554 | |
| Selenium | 7782-49-2 | 0.00463 | U | 0.00762 | |
| Thallium | 7440-28-0 | 1.29E-4 | U | 5.01E-4 | |
| Vanadium | 7440-62-2 | 0.0372 | U | 0.0450 | |
| Zinc | 7440-66-6 | 3.75 | U | 65.3 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112324-HM **Lab ID:** 4120531-10 **Sampled:** 11/23/24 23:59
Matrix: Air **Sample Volume:** 1946.379 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 02:57
Comments: Q8537011 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.124 | SL | 0.0323 |
| Arsenic | 7440-38-2 | 0.208 | | 0.00783 |
| Barium | 7440-39-3 | 4.85 | QB-01 | 0.894 |
| Beryllium | 7440-41-7 | 0.0110 | | 0.00267 |
| Cadmium | 7440-43-9 | 0.0165 | U | 0.0619 |
| Chromium | 7440-47-3 | 3.22 | | 1.85 |
| Cobalt | 7440-48-4 | 0.417 | | 0.0364 |
| Copper | 7440-50-8 | 36.7 | | 2.20 |
| Lead | 7439-92-1 | 0.535 | | 0.179 |
| Manganese | 7439-96-5 | 11.5 | | 1.58 |
| Molybdenum | 7439-98-7 | 2.53 | | 0.300 |
| Nickel | 7440-02-0 | 2.03 | | 0.545 |
| Selenium | 7782-49-2 | 0.142 | | 0.00749 |
| Thallium | 7440-28-0 | 0.00147 | | 4.92E-4 |
| Vanadium | 7440-62-2 | 1.33 | | 0.0442 |
| Zinc | 7440-66-6 | 14.3 | U | 64.2 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112324-HM **Lab ID:** 4120531-11 **Sampled:** 11/23/24 23:59
Matrix: Air **Sample Volume:** 2017.956 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 03:12
Comments: Q8537009 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.241 | SL | 0.0311 |
| Arsenic | 7440-38-2 | 0.367 | | 0.00755 |
| Barium | 7440-39-3 | 9.76 | QB-01 | 0.863 |
| Beryllium | 7440-41-7 | 0.0309 | | 0.00258 |
| Cadmium | 7440-43-9 | 0.0274 | U | 0.0597 |
| Chromium | 7440-47-3 | 4.75 | | 1.78 |
| Cobalt | 7440-48-4 | 1.16 | | 0.0352 |
| Copper | 7440-50-8 | 44.0 | | 2.12 |
| Lead | 7439-92-1 | 1.19 | | 0.173 |
| Manganese | 7439-96-5 | 29.2 | | 1.52 |
| Molybdenum | 7439-98-7 | 2.62 | | 0.289 |
| Nickel | 7440-02-0 | 3.39 | | 0.526 |
| Selenium | 7782-49-2 | 0.217 | | 0.00722 |
| Thallium | 7440-28-0 | 0.00224 | | 4.75E-4 |
| Vanadium | 7440-62-2 | 3.36 | | 0.0427 |
| Zinc | 7440-66-6 | 21.7 | U | 61.9 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112324-HM **Lab ID:** 4120531-12 **Sampled:** 11/23/24 23:59
Matrix: Air **Sample Volume:** 1918.398 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 04:44
Comments: Q8537008 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0779 | SL | 0.0327 | |
| Arsenic | 7440-38-2 | 0.186 | | 0.00795 | |
| Barium | 7440-39-3 | 4.28 | QB-01 | 0.907 | |
| Beryllium | 7440-41-7 | 0.0220 | | 0.00271 | |
| Cadmium | 7440-43-9 | 0.0158 | U | 0.0628 | |
| Chromium | 7440-47-3 | 3.32 | | 1.87 | |
| Cobalt | 7440-48-4 | 0.568 | | 0.0370 | |
| Copper | 7440-50-8 | 67.1 | | 2.23 | |
| Lead | 7439-92-1 | 0.489 | | 0.181 | |
| Manganese | 7439-96-5 | 13.2 | | 1.60 | |
| Molybdenum | 7439-98-7 | 3.66 | | 0.304 | |
| Nickel | 7440-02-0 | 2.13 | | 0.553 | |
| Selenium | 7782-49-2 | 0.160 | | 0.00760 | |
| Thallium | 7440-28-0 | 0.00167 | QB-04 | 5.00E-4 | |
| Vanadium | 7440-62-2 | 1.44 | | 0.0449 | |
| Zinc | 7440-66-6 | 10.9 | U | 65.1 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112324-HM **Lab ID:** 4120531-13 **Sampled:** 11/23/24 23:59
Matrix: Air **Sample Volume:** 1878.603 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/06/24 18:15
Comments: Q8537007 MS/MSD - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.102 | SL | 0.0334 |
| Arsenic | 7440-38-2 | 0.311 | | 0.00812 |
| Barium | 7440-39-3 | 5.68 | QB-01 | 0.927 |
| Beryllium | 7440-41-7 | 0.0283 | | 0.00277 |
| Cadmium | 7440-43-9 | 0.0151 | U | 0.0642 |
| Chromium | 7440-47-3 | 3.17 | | 1.91 |
| Cobalt | 7440-48-4 | 0.720 | | 0.0378 |
| Copper | 7440-50-8 | 28.3 | | 2.28 |
| Lead | 7439-92-1 | 0.969 | | 0.185 |
| Manganese | 7439-96-5 | 24.2 | | 1.64 |
| Molybdenum | 7439-98-7 | 1.32 | | 0.311 |
| Nickel | 7440-02-0 | 1.93 | | 0.565 |
| Selenium | 7782-49-2 | 0.206 | | 0.00776 |
| Thallium | 7440-28-0 | 0.00188 | | 5.10E-4 |
| Vanadium | 7440-62-2 | 1.90 | | 0.0458 |
| Zinc | 7440-66-6 | 11.4 | U | 66.5 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112424-HM **Lab ID:** 4120531-14 **Sampled:** 11/24/24 23:59
Matrix: Air **Sample Volume:** 1922.391 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 05:03
Comments: Q8537003 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0997 | SL | 0.0327 | |
| Arsenic | 7440-38-2 | 0.176 | | 0.00793 | |
| Barium | 7440-39-3 | 3.86 | QB-01 | 0.906 | |
| Beryllium | 7440-41-7 | 0.00966 | | 0.00271 | |
| Cadmium | 7440-43-9 | 0.0112 | U | 0.0627 | |
| Chromium | 7440-47-3 | 2.35 | | 1.87 | |
| Cobalt | 7440-48-4 | 0.362 | | 0.0369 | |
| Copper | 7440-50-8 | 30.8 | | 2.23 | |
| Lead | 7439-92-1 | 0.506 | | 0.181 | |
| Manganese | 7439-96-5 | 10.6 | | 1.60 | |
| Molybdenum | 7439-98-7 | 2.26 | | 0.304 | |
| Nickel | 7440-02-0 | 1.56 | | 0.552 | |
| Selenium | 7782-49-2 | 0.150 | | 0.00758 | |
| Thallium | 7440-28-0 | 0.00137 | QB-04 | 4.98E-4 | |
| Vanadium | 7440-62-2 | 1.50 | | 0.0448 | |
| Zinc | 7440-66-6 | 9.92 | U | 65.0 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112424-HM **Lab ID:** 4120531-15 **Sampled:** 11/24/24 23:59
Matrix: Air **Sample Volume:** 2070.764 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 05:18
Comments: Q8537001 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.258 | SL | 0.0303 | |
| Arsenic | 7440-38-2 | 0.230 | | 0.00736 | |
| Barium | 7440-39-3 | 6.91 | QB-01 | 0.841 | |
| Beryllium | 7440-41-7 | 0.0119 | | 0.00251 | |
| Cadmium | 7440-43-9 | 0.128 | | 0.0582 | |
| Chromium | 7440-47-3 | 2.42 | | 1.74 | |
| Cobalt | 7440-48-4 | 0.426 | | 0.0343 | |
| Copper | 7440-50-8 | 53.6 | | 2.07 | |
| Lead | 7439-92-1 | 0.948 | | 0.168 | |
| Manganese | 7439-96-5 | 13.9 | | 1.48 | |
| Molybdenum | 7439-98-7 | 3.56 | | 0.282 | |
| Nickel | 7440-02-0 | 1.57 | | 0.512 | |
| Selenium | 7782-49-2 | 0.170 | | 0.00704 | |
| Thallium | 7440-28-0 | 0.00148 | QB-04 | 4.63E-4 | |
| Vanadium | 7440-62-2 | 1.73 | | 0.0416 | |
| Zinc | 7440-66-6 | 18.3 | U | 60.3 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112424-HM **Lab ID:** 4120531-16 **Sampled:** 11/24/24 23:59
Matrix: Air **Sample Volume:** 1948.294 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 05:33
Comments: Q8536999 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0540 | SL | 0.0322 | |
| Arsenic | 7440-38-2 | 0.214 | | 0.00782 | |
| Barium | 7440-39-3 | 2.42 | QB-01 | 0.894 | |
| Beryllium | 7440-41-7 | 0.00954 | | 0.00267 | |
| Cadmium | 7440-43-9 | 0.00639 | U | 0.0619 | |
| Chromium | 7440-47-3 | 1.93 | | 1.85 | |
| Cobalt | 7440-48-4 | 0.270 | | 0.0364 | |
| Copper | 7440-50-8 | 45.1 | | 2.20 | |
| Lead | 7439-92-1 | 0.401 | | 0.179 | |
| Manganese | 7439-96-5 | 7.20 | | 1.58 | |
| Molybdenum | 7439-98-7 | 2.77 | | 0.300 | |
| Nickel | 7440-02-0 | 1.22 | | 0.544 | |
| Selenium | 7782-49-2 | 0.132 | | 0.00748 | |
| Thallium | 7440-28-0 | 0.00116 | QB-04 | 4.92E-4 | |
| Vanadium | 7440-62-2 | 1.10 | | 0.0442 | |
| Zinc | 7440-66-6 | 7.55 | U | 64.1 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112424-HM **Lab ID:** 4120531-17 **Sampled:** 11/24/24 23:59
Matrix: Air **Sample Volume:** 1624.757 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 05:47
Comments: Q8536998 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0748 | SL | 0.0387 | |
| Arsenic | 7440-38-2 | 0.280 | | 0.00938 | |
| Barium | 7440-39-3 | 3.64 | QB-01 | 1.07 | |
| Beryllium | 7440-41-7 | 0.0177 | | 0.00320 | |
| Cadmium | 7440-43-9 | 0.0111 | U | 0.0742 | |
| Chromium | 7440-47-3 | 2.53 | | 2.21 | |
| Cobalt | 7440-48-4 | 0.455 | | 0.0437 | |
| Copper | 7440-50-8 | 20.0 | | 2.63 | |
| Lead | 7439-92-1 | 0.436 | | 0.214 | |
| Manganese | 7439-96-5 | 17.0 | | 1.89 | |
| Molybdenum | 7439-98-7 | 1.26 | | 0.359 | |
| Nickel | 7440-02-0 | 1.50 | | 0.653 | |
| Selenium | 7782-49-2 | 0.168 | | 0.00897 | |
| Thallium | 7440-28-0 | 0.00142 | QB-04 | 5.90E-4 | |
| Vanadium | 7440-62-2 | 1.59 | | 0.0530 | |
| Zinc | 7440-66-6 | 8.09 | U | 76.9 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-FB01-112424-HM **Lab ID:** 4120531-18 **Sampled:** 11/24/24 00:00
Matrix: Air **Sample Volume:** 1922.391 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 06:03
Comments: Q8536995 Field Blank - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|-----------------|-------------------|-----------------------------|--------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.105 | FB-01, SL | 0.0327 |
| Arsenic | 7440-38-2 | 0.0115 | FB-01 | 0.00793 |
| Barium | 7440-39-3 | 0.965 | FB-01, QB-01 | 0.906 |
| Beryllium | 7440-41-7 | 7.07E-4 | U | 0.00271 |
| Cadmium | 7440-43-9 | 0.00198 | U | 0.0627 |
| Chromium | 7440-47-3 | 1.01 | U | 1.87 |
| Cobalt | 7440-48-4 | 0.0259 | U | 0.0369 |
| Copper | 7440-50-8 | 0.727 | U | 2.23 |
| Lead | 7439-92-1 | 0.0384 | U | 0.181 |
| Manganese | 7439-96-5 | 0.650 | U | 1.60 |
| Molybdenum | 7439-98-7 | 0.158 | U | 0.304 |
| Nickel | 7440-02-0 | 0.486 | U | 0.552 |
| Selenium | 7782-49-2 | 0.00499 | U | 0.00758 |
| Thallium | 7440-28-0 | 1.57E-4 | QB-04, U | 4.98E-4 |
| Vanadium | 7440-62-2 | 0.0434 | U | 0.0448 |
| Zinc | 7440-66-6 | 4.45 | U | 65.0 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112524-HM **Lab ID:** 4120531-19 **Sampled:** 11/25/24 23:59
Matrix: Air **Sample Volume:** 1942.15 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 06:17
Comments: Q8536997 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.172 | SL | 0.0323 | |
| Arsenic | 7440-38-2 | 0.290 | | 0.00785 | |
| Barium | 7440-39-3 | 7.20 | QB-01 | 0.896 | |
| Beryllium | 7440-41-7 | 0.0219 | | 0.00268 | |
| Cadmium | 7440-43-9 | 0.0173 | U | 0.0621 | |
| Chromium | 7440-47-3 | 5.76 | | 1.85 | |
| Cobalt | 7440-48-4 | 0.973 | | 0.0365 | |
| Copper | 7440-50-8 | 39.8 | | 2.20 | |
| Lead | 7439-92-1 | 0.562 | | 0.179 | |
| Manganese | 7439-96-5 | 23.8 | | 1.58 | |
| Molybdenum | 7439-98-7 | 2.82 | | 0.301 | |
| Nickel | 7440-02-0 | 3.93 | | 0.546 | |
| Selenium | 7782-49-2 | 0.174 | | 0.00751 | |
| Thallium | 7440-28-0 | 0.00175 | QB-04 | 4.93E-4 | |
| Vanadium | 7440-62-2 | 2.83 | | 0.0443 | |
| Zinc | 7440-66-6 | 19.1 | U | 64.3 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112524-HM **Lab ID:** 4120531-20 **Sampled:** 11/25/24 23:59
Matrix: Air **Sample Volume:** 2095.618 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 06:33
Comments: Q8536996 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.218 | SL | 0.0300 | |
| Arsenic | 7440-38-2 | 0.365 | | 0.00727 | |
| Barium | 7440-39-3 | 9.26 | QB-01 | 0.831 | |
| Beryllium | 7440-41-7 | 0.0263 | | 0.00248 | |
| Cadmium | 7440-43-9 | 0.0213 | U | 0.0575 | |
| Chromium | 7440-47-3 | 4.20 | | 1.72 | |
| Cobalt | 7440-48-4 | 0.968 | | 0.0339 | |
| Copper | 7440-50-8 | 56.1 | | 2.04 | |
| Lead | 7439-92-1 | 1.30 | | 0.166 | |
| Manganese | 7439-96-5 | 26.2 | | 1.47 | |
| Molybdenum | 7439-98-7 | 2.51 | | 0.279 | |
| Nickel | 7440-02-0 | 2.91 | | 0.506 | |
| Selenium | 7782-49-2 | 0.189 | | 0.00696 | |
| Thallium | 7440-28-0 | 0.00185 | QB-04 | 4.57E-4 | |
| Vanadium | 7440-62-2 | 2.94 | | 0.0411 | |
| Zinc | 7440-66-6 | 40.3 | U | 59.6 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112524-HM **Lab ID:** 4120531-21 **Sampled:** 11/25/24 23:59
Matrix: Air **Sample Volume:** 1941.764 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 07:04
Comments: Q8536994 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0585 | SL | 0.0323 | |
| Arsenic | 7440-38-2 | 0.199 | | 0.00785 | |
| Barium | 7440-39-3 | 4.64 | QB-01 | 0.897 | |
| Beryllium | 7440-41-7 | 0.0351 | | 0.00268 | |
| Cadmium | 7440-43-9 | 0.0176 | U | 0.0621 | |
| Chromium | 7440-47-3 | 8.01 | | 1.85 | |
| Cobalt | 7440-48-4 | 0.907 | | 0.0365 | |
| Copper | 7440-50-8 | 71.6 | | 2.20 | |
| Lead | 7439-92-1 | 0.628 | | 0.179 | |
| Manganese | 7439-96-5 | 20.7 | | 1.58 | |
| Molybdenum | 7439-98-7 | 3.20 | | 0.301 | |
| Nickel | 7440-02-0 | 5.83 | | 0.546 | |
| Selenium | 7782-49-2 | 0.200 | | 0.00751 | |
| Thallium | 7440-28-0 | 0.00167 | QB-04 | 4.94E-4 | |
| Vanadium | 7440-62-2 | 2.12 | | 0.0443 | |
| Zinc | 7440-66-6 | 15.5 | U | 64.4 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112524-HM **Lab ID:** 4120531-22 **Sampled:** 11/25/24 23:59
Matrix: Air **Sample Volume:** 1814.786 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 08:35
Comments: Q8536991 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.132 | SL | 0.0346 | |
| Arsenic | 7440-38-2 | 0.660 | | 0.00840 | |
| Barium | 7440-39-3 | 6.07 | QB-01 | 0.959 | |
| Beryllium | 7440-41-7 | 0.0310 | | 0.00287 | |
| Cadmium | 7440-43-9 | 0.0210 | U | 0.0664 | |
| Chromium | 7440-47-3 | 5.29 | | 1.98 | |
| Cobalt | 7440-48-4 | 1.06 | | 0.0391 | |
| Copper | 7440-50-8 | 31.0 | | 2.36 | |
| Lead | 7439-92-1 | 0.867 | | 0.192 | |
| Manganese | 7439-96-5 | 35.4 | | 1.69 | |
| Molybdenum | 7439-98-7 | 1.45 | | 0.322 | |
| Nickel | 7440-02-0 | 2.69 | | 0.585 | |
| Selenium | 7782-49-2 | 0.228 | | 0.00803 | |
| Thallium | 7440-28-0 | 0.00248 | QB-04 | 5.28E-4 | |
| Vanadium | 7440-62-2 | 2.91 | | 0.0474 | |
| Zinc | 7440-66-6 | 24.0 | LJ, QX, U | 68.9 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112624-HM **Lab ID:** 4120531-23 **Sampled:** 11/26/24 23:59
Matrix: Air **Sample Volume:** 1875.08 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 08:51
Comments: Q8536989 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.137 | SL | 0.0335 |
| Arsenic | 7440-38-2 | 0.791 | | 0.00813 |
| Barium | 7440-39-3 | 16.7 | QB-01 | 0.928 |
| Beryllium | 7440-41-7 | 0.0697 | | 0.00278 |
| Cadmium | 7440-43-9 | 0.0427 | U | 0.0643 |
| Chromium | 7440-47-3 | 12.1 | | 1.92 |
| Cobalt | 7440-48-4 | 3.09 | | 0.0378 |
| Copper | 7440-50-8 | 42.8 | | 2.28 |
| Lead | 7439-92-1 | 1.17 | | 0.186 |
| Manganese | 7439-96-5 | 72.2 | | 1.64 |
| Molybdenum | 7439-98-7 | 2.58 | | 0.312 |
| Nickel | 7440-02-0 | 9.63 | | 0.566 |
| Selenium | 7782-49-2 | 0.384 | | 0.00777 |
| Thallium | 7440-28-0 | 0.00368 | QB-04 | 5.11E-4 |
| Vanadium | 7440-62-2 | 8.56 | | 0.0459 |
| Zinc | 7440-66-6 | 29.6 | LJ, QX, U | 66.6 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112624-HM **Lab ID:** 4120531-24 **Sampled:** 11/26/24 23:59
Matrix: Air **Sample Volume:** 2058.644 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 09:11
Comments: Q8536988 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.247 | SL | 0.0305 |
| Arsenic | 7440-38-2 | 0.613 | | 0.00741 |
| Barium | 7440-39-3 | 15.3 | QB-01 | 0.846 |
| Beryllium | 7440-41-7 | 0.0425 | | 0.00253 |
| Cadmium | 7440-43-9 | 0.0297 | U | 0.0586 |
| Chromium | 7440-47-3 | 6.66 | | 1.75 |
| Cobalt | 7440-48-4 | 1.61 | | 0.0345 |
| Copper | 7440-50-8 | 70.3 | | 2.08 |
| Lead | 7439-92-1 | 2.60 | | 0.169 |
| Manganese | 7439-96-5 | 46.0 | | 1.49 |
| Molybdenum | 7439-98-7 | 2.65 | | 0.284 |
| Nickel | 7440-02-0 | 4.73 | | 0.515 |
| Selenium | 7782-49-2 | 0.319 | | 0.00708 |
| Thallium | 7440-28-0 | 0.00254 | QB-04 | 4.66E-4 |
| Vanadium | 7440-62-2 | 5.08 | | 0.0418 |
| Zinc | 7440-66-6 | 41.3 | LJ, QX, U | 60.7 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112624-HM **Lab ID:** 4120531-25 **Sampled:** 11/26/24 23:59
Matrix: Air **Sample Volume:** 1927.117 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 09:29
Comments: Q8536987 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0740 | SL | 0.0326 |
| Arsenic | 7440-38-2 | 0.260 | | 0.00791 |
| Barium | 7440-39-3 | 4.87 | QB-01 | 0.903 |
| Beryllium | 7440-41-7 | 0.0461 | | 0.00270 |
| Cadmium | 7440-43-9 | 0.0157 | U | 0.0626 |
| Chromium | 7440-47-3 | 5.33 | | 1.87 |
| Cobalt | 7440-48-4 | 1.08 | | 0.0368 |
| Copper | 7440-50-8 | 61.7 | | 2.22 |
| Lead | 7439-92-1 | 0.657 | | 0.181 |
| Manganese | 7439-96-5 | 25.7 | | 1.60 |
| Molybdenum | 7439-98-7 | 3.59 | | 0.303 |
| Nickel | 7440-02-0 | 3.20 | | 0.550 |
| Selenium | 7782-49-2 | 0.252 | | 0.00756 |
| Thallium | 7440-28-0 | 0.00198 | QB-04 | 4.97E-4 |
| Vanadium | 7440-62-2 | 2.51 | | 0.0447 |
| Zinc | 7440-66-6 | 14.1 | LJ, QX, U | 64.8 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112624-HM **Lab ID:** 4120531-26 **Sampled:** 11/26/24 23:59
Matrix: Air **Sample Volume:** 1862.612 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 09:45
Comments: Q8536986 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.141 | SL | 0.0337 |
| Arsenic | 7440-38-2 | 1.43 | LJ, QX | 0.00818 |
| Barium | 7440-39-3 | 11.3 | QB-01 | 0.935 |
| Beryllium | 7440-41-7 | 0.0750 | | 0.00280 |
| Cadmium | 7440-43-9 | 0.0376 | LJ, QX, U | 0.0647 |
| Chromium | 7440-47-3 | 10.2 | | 1.93 |
| Cobalt | 7440-48-4 | 2.50 | | 0.0381 |
| Copper | 7440-50-8 | 24.1 | | 2.30 |
| Lead | 7439-92-1 | 1.34 | | 0.187 |
| Manganese | 7439-96-5 | 82.6 | | 1.65 |
| Molybdenum | 7439-98-7 | 1.08 | LJ, QX | 0.314 |
| Nickel | 7440-02-0 | 5.63 | | 0.570 |
| Selenium | 7782-49-2 | 0.447 | LJ, QX | 0.00783 |
| Thallium | 7440-28-0 | 0.00423 | QB-04 | 5.14E-4 |
| Vanadium | 7440-62-2 | 6.61 | | 0.0462 |
| Zinc | 7440-66-6 | 43.4 | LJ, QX, U | 67.1 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-FB01-112624-HM **Lab ID:** 4120531-27 **Sampled:** 11/26/24 00:00
Matrix: Air **Sample Volume:** 1875.08 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 10:05
Comments: Q9552334 Field Blank - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0138 | SL, U | 0.0335 | |
| Arsenic | 7440-38-2 | 0.0124 | FB-01 | 0.00813 | |
| Barium | 7440-39-3 | 0.538 | QB-01, U | 0.928 | |
| Beryllium | 7440-41-7 | 0.00130 | U | 0.00278 | |
| Cadmium | 7440-43-9 | 0.00212 | U | 0.0643 | |
| Chromium | 7440-47-3 | 1.26 | U | 1.92 | |
| Cobalt | 7440-48-4 | 0.0352 | U | 0.0378 | |
| Copper | 7440-50-8 | 0.904 | U | 2.28 | |
| Lead | 7439-92-1 | 0.0632 | U | 0.186 | |
| Manganese | 7439-96-5 | 0.592 | U | 1.64 | |
| Molybdenum | 7439-98-7 | 0.234 | U | 0.312 | |
| Nickel | 7440-02-0 | 0.344 | U | 0.566 | |
| Selenium | 7782-49-2 | 0.00664 | U | 0.00777 | |
| Thallium | 7440-28-0 | 1.24E-4 | QB-04, U | 5.11E-4 | |
| Vanadium | 7440-62-2 | 0.0335 | U | 0.0459 | |
| Zinc | 7440-66-6 | 3.55 | LJ, QX, U | 66.6 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-LB01-112624-HM **Lab ID:** 4120531-28 **Sampled:** 11/26/24 00:00
Matrix: Air **Sample Volume:** 1875.08 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 10:18
Comments: Q9552335 Lot Blank - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0152 | SL, U | 0.0335 | |
| Arsenic | 7440-38-2 | 0.0112 | | 0.00813 | |
| Barium | 7440-39-3 | 0.498 | QB-01, U | 0.928 | |
| Beryllium | 7440-41-7 | 7.92E-4 | U | 0.00278 | |
| Cadmium | 7440-43-9 | 0.00206 | U | 0.0643 | |
| Chromium | 7440-47-3 | 1.38 | U | 1.92 | |
| Cobalt | 7440-48-4 | 0.0337 | U | 0.0378 | |
| Copper | 7440-50-8 | 1.11 | U | 2.28 | |
| Lead | 7439-92-1 | 0.0584 | U | 0.186 | |
| Manganese | 7439-96-5 | 0.546 | U | 1.64 | |
| Molybdenum | 7439-98-7 | 0.237 | U | 0.312 | |
| Nickel | 7440-02-0 | 0.410 | U | 0.566 | |
| Selenium | 7782-49-2 | 0.00517 | U | 0.00777 | |
| Thallium | 7440-28-0 | 1.06E-4 | QB-04, U | 5.11E-4 | |
| Vanadium | 7440-62-2 | 0.0303 | U | 0.0459 | |
| Zinc | 7440-66-6 | 2.76 | LJ, QX, U | 66.6 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM05-112724-HM **Lab ID:** 4120531-29 **Sampled:** 11/27/24 23:59
Matrix: Air **Sample Volume:** 1918.372 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 10:32
Comments: Q9552339 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0948 | SL | 0.0327 | |
| Arsenic | 7440-38-2 | 0.850 | | 0.00795 | |
| Barium | 7440-39-3 | 17.1 | QB-01 | 0.907 | |
| Beryllium | 7440-41-7 | 0.0767 | | 0.00271 | |
| Cadmium | 7440-43-9 | 0.0338 | U | 0.0628 | |
| Chromium | 7440-47-3 | 14.9 | | 1.87 | |
| Cobalt | 7440-48-4 | 3.79 | | 0.0370 | |
| Copper | 7440-50-8 | 37.7 | | 2.23 | |
| Lead | 7439-92-1 | 0.893 | | 0.181 | |
| Manganese | 7439-96-5 | 83.9 | | 1.60 | |
| Molybdenum | 7439-98-7 | 1.90 | | 0.304 | |
| Nickel | 7440-02-0 | 10.3 | | 0.553 | |
| Selenium | 7782-49-2 | 0.413 | | 0.00760 | |
| Thallium | 7440-28-0 | 0.00368 | QB-04 | 5.00E-4 | |
| Vanadium | 7440-62-2 | 10.3 | E | 0.0449 | |
| Zinc | 7440-66-6 | 23.4 | LJ, QX, U | 65.1 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM02-112724-HM **Lab ID:** 4120531-30 **Sampled:** 11/27/24 23:59
Matrix: Air **Sample Volume:** 2133.393 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 10:49
Comments: Q9552338 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.172 | SL | 0.0294 |
| Arsenic | 7440-38-2 | 0.754 | | 0.00715 |
| Barium | 7440-39-3 | 13.9 | QB-01 | 0.816 |
| Beryllium | 7440-41-7 | 0.0543 | | 0.00244 |
| Cadmium | 7440-43-9 | 0.0547 | U | 0.0565 |
| Chromium | 7440-47-3 | 7.17 | | 1.69 |
| Cobalt | 7440-48-4 | 1.72 | | 0.0333 |
| Copper | 7440-50-8 | 62.5 | | 2.01 |
| Lead | 7439-92-1 | 3.97 | | 0.163 |
| Manganese | 7439-96-5 | 53.6 | | 1.44 |
| Molybdenum | 7439-98-7 | 2.05 | | 0.274 |
| Nickel | 7440-02-0 | 4.36 | | 0.497 |
| Selenium | 7782-49-2 | 0.339 | | 0.00683 |
| Thallium | 7440-28-0 | 0.00269 | QB-04 | 4.49E-4 |
| Vanadium | 7440-62-2 | 5.61 | | 0.0403 |
| Zinc | 7440-66-6 | 53.5 | LJ, QX, U | 58.6 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM03-112724-HM **Lab ID:** 4120531-31 **Sampled:** 11/27/24 23:59
Matrix: Air **Sample Volume:** 1945.036 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 12:28
Comments: Q9552337 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> |
| Antimony | 7440-36-0 | 0.0495 | SL | 0.0323 |
| Arsenic | 7440-38-2 | 0.253 | | 0.00784 |
| Barium | 7440-39-3 | 4.43 | QB-01 | 0.895 |
| Beryllium | 7440-41-7 | 0.0500 | | 0.00268 |
| Cadmium | 7440-43-9 | 0.0155 | U | 0.0620 |
| Chromium | 7440-47-3 | 5.81 | | 1.85 |
| Cobalt | 7440-48-4 | 1.20 | | 0.0365 |
| Copper | 7440-50-8 | 48.5 | | 2.20 |
| Lead | 7439-92-1 | 0.389 | | 0.179 |
| Manganese | 7439-96-5 | 28.2 | | 1.58 |
| Molybdenum | 7439-98-7 | 2.20 | | 0.300 |
| Nickel | 7440-02-0 | 3.25 | | 0.545 |
| Selenium | 7782-49-2 | 0.257 | | 0.00749 |
| Thallium | 7440-28-0 | 0.00187 | QB-04 | 4.93E-4 |
| Vanadium | 7440-62-2 | 2.66 | | 0.0443 |
| Zinc | 7440-66-6 | 10.6 | LJ, QX, U | 64.2 |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

Description: MFL-AM07-112724-HM **Lab ID:** 4120531-32 **Sampled:** 11/27/24 23:59
Matrix: Air **Sample Volume:** 1874.411 m³ **Received:** 12/05/24 11:40
Filter ID: **Analysis Date:** 12/07/24 13:01
Comments: Q9552333 - Received in good condition.

Inorganics by Compendium Method IO-3.5

| <u>Analyte</u> | <u>CAS Number</u> | <u>Results</u> | | <u>MDL</u> | |
|----------------|-------------------|-----------------------------|-------------|-----------------------------|--|
| | | <u>ng/m³ Air</u> | <u>Flag</u> | <u>ng/m³ Air</u> | |
| Antimony | 7440-36-0 | 0.0789 | SL | 0.0335 | |
| Arsenic | 7440-38-2 | 0.749 | | 0.00813 | |
| Barium | 7440-39-3 | 6.49 | QB-01 | 0.929 | |
| Beryllium | 7440-41-7 | 0.0383 | | 0.00278 | |
| Cadmium | 7440-43-9 | 0.0665 | | 0.0643 | |
| Chromium | 7440-47-3 | 6.04 | | 1.92 | |
| Cobalt | 7440-48-4 | 1.26 | | 0.0378 | |
| Copper | 7440-50-8 | 18.3 | | 2.28 | |
| Lead | 7439-92-1 | 0.888 | | 0.186 | |
| Manganese | 7439-96-5 | 42.2 | | 1.64 | |
| Molybdenum | 7439-98-7 | 1.05 | | 0.312 | |
| Nickel | 7440-02-0 | 2.93 | | 0.566 | |
| Selenium | 7782-49-2 | 0.277 | | 0.00778 | |
| Thallium | 7440-28-0 | 0.00232 | QB-04 | 5.11E-4 | |
| Vanadium | 7440-62-2 | 3.41 | | 0.0459 | |
| Zinc | 7440-66-6 | 15.4 | LJ, QX, U | 66.7 | |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Blank (2412020-CCB1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.378 | | ng/l | | | | | | | |
| Arsenic | 3.34 | | ng/l | | | | | | | |
| Barium | 0.850 | | ng/l | | | | | | | |
| Beryllium | -0.309 | | ng/l | | | | | | | U |
| Cadmium | 0.0826 | | ng/l | | | | | | | |
| Chromium | 0.622 | | ng/l | | | | | | | |
| Cobalt | 0.249 | | ng/l | | | | | | | |
| Copper | 9.69 | | ng/l | | | | | | | |
| Lead | 1.94 | | ng/l | | | | | | | |
| Manganese | 3.02 | | ng/l | | | | | | | |
| Molybdenum | 21.3 | | ng/l | | | | | | | |
| Nickel | -1.73 | | ng/l | | | | | | | U |
| Selenium | 4.36 | | ng/l | | | | | | | |
| Thallium | 1.32 | | ng/l | | | | | | | |
| Vanadium | -68.1 | | ng/l | | | | | | | U |
| Zinc | -47.4 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB2)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.405 | | ng/l | | | | | | | |
| Arsenic | -1.01 | | ng/l | | | | | | | U |
| Barium | 1.45 | | ng/l | | | | | | | |
| Beryllium | -0.672 | | ng/l | | | | | | | U |
| Cadmium | 0.192 | | ng/l | | | | | | | |
| Chromium | 1.49 | | ng/l | | | | | | | |
| Cobalt | 0.242 | | ng/l | | | | | | | |
| Copper | 12.2 | | ng/l | | | | | | | |
| Lead | 1.38 | | ng/l | | | | | | | |
| Manganese | 3.55 | | ng/l | | | | | | | |
| Molybdenum | 1.04 | | ng/l | | | | | | | |
| Nickel | 0.474 | | ng/l | | | | | | | |
| Selenium | 8.74 | | ng/l | | | | | | | |
| Thallium | 1.01 | | ng/l | | | | | | | |
| Vanadium | -77.7 | | ng/l | | | | | | | U |
| Zinc | -67.1 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB3)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|-----------|-------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.613 | | ng/l | | | | | | | |
| Arsenic | 2.90 | | ng/l | | | | | | | |
| Barium | 1.89 | | ng/l | | | | | | | |
| Beryllium | -1.01 | | ng/l | | | | | | | U |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Blank (2412020-CCB3) Contin

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|--|--|--|--|--|--|---|
| Cadmium | 0.123 | | ng/l | | | | | | | |
| Chromium | 3.28 | | ng/l | | | | | | | |
| Cobalt | 0.371 | | ng/l | | | | | | | |
| Copper | 28.9 | | ng/l | | | | | | | |
| Lead | 2.13 | | ng/l | | | | | | | |
| Manganese | 5.61 | | ng/l | | | | | | | |
| Molybdenum | 2.08 | | ng/l | | | | | | | |
| Nickel | -0.582 | | ng/l | | | | | | | U |
| Selenium | 7.86 | | ng/l | | | | | | | |
| Thallium | 1.19 | | ng/l | | | | | | | |
| Vanadium | -85.0 | | ng/l | | | | | | | U |
| Zinc | -54.7 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB4)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|-------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.488 | | ng/l | | | | | | | |
| Arsenic | 2.45 | | ng/l | | | | | | | |
| Barium | 1.30 | | ng/l | | | | | | | |
| Beryllium | -1.09 | | ng/l | | | | | | | U |
| Cadmium | 0.115 | | ng/l | | | | | | | |
| Chromium | 1.07 | | ng/l | | | | | | | |
| Cobalt | 0.253 | | ng/l | | | | | | | |
| Copper | 17.0 | | ng/l | | | | | | | |
| Lead | 1.48 | | ng/l | | | | | | | |
| Manganese | 3.41 | | ng/l | | | | | | | |
| Molybdenum | 4.09 | | ng/l | | | | | | | |
| Nickel | 1.04 | | ng/l | | | | | | | |
| Selenium | 5.15 | | ng/l | | | | | | | |
| Thallium | 1.32 | | ng/l | | | | | | | |
| Vanadium | -91.6 | | ng/l | | | | | | | U |
| Zinc | -59.8 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB5)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|-----------|--------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.878 | | ng/l | | | | | | | |
| Arsenic | 3.57 | | ng/l | | | | | | | |
| Barium | 1.65 | | ng/l | | | | | | | |
| Beryllium | -1.46 | | ng/l | | | | | | | U |
| Cadmium | 0.0298 | | ng/l | | | | | | | |
| Chromium | 2.72 | | ng/l | | | | | | | |
| Cobalt | 0.292 | | ng/l | | | | | | | |
| Copper | 18.4 | | ng/l | | | | | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Blank (2412020-CCB5) Contin

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|-------|--|------|--|--|--|--|--|--|-------|
| Lead | 1.43 | | ng/l | | | | | | | |
| Manganese | 3.44 | | ng/l | | | | | | | |
| Molybdenum | 3.47 | | ng/l | | | | | | | |
| Nickel | 3.22 | | ng/l | | | | | | | |
| Selenium | 5.75 | | ng/l | | | | | | | |
| Thallium | 1.46 | | ng/l | | | | | | | QB-04 |
| Vanadium | -98.8 | | ng/l | | | | | | | U |
| Zinc | -53.9 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB6)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|-------|--|------|--|--|--|--|--|--|-------|
| Antimony | 0.903 | | ng/l | | | | | | | |
| Arsenic | 2.72 | | ng/l | | | | | | | |
| Barium | 2.26 | | ng/l | | | | | | | |
| Beryllium | -1.49 | | ng/l | | | | | | | U |
| Cadmium | 0.101 | | ng/l | | | | | | | |
| Chromium | 1.85 | | ng/l | | | | | | | |
| Cobalt | 0.413 | | ng/l | | | | | | | |
| Copper | 19.2 | | ng/l | | | | | | | |
| Lead | 2.76 | | ng/l | | | | | | | |
| Manganese | 4.35 | | ng/l | | | | | | | |
| Molybdenum | 2.80 | | ng/l | | | | | | | |
| Nickel | 5.69 | | ng/l | | | | | | | |
| Selenium | 0.653 | | ng/l | | | | | | | |
| Thallium | 1.37 | | ng/l | | | | | | | QB-04 |
| Vanadium | -101 | | ng/l | | | | | | | U |
| Zinc | -48.5 | | ng/l | | | | | | | U |

Calibration Blank (2412020-CCB7)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|--|--|--|--|--|--|---|
| Antimony | 1.05 | | ng/l | | | | | | | |
| Arsenic | 2.32 | | ng/l | | | | | | | |
| Barium | 2.14 | | ng/l | | | | | | | |
| Beryllium | -1.24 | | ng/l | | | | | | | U |
| Cadmium | 0.0664 | | ng/l | | | | | | | |
| Chromium | 1.74 | | ng/l | | | | | | | |
| Cobalt | 0.360 | | ng/l | | | | | | | |
| Copper | 18.4 | | ng/l | | | | | | | |
| Lead | 2.39 | | ng/l | | | | | | | |
| Manganese | 3.86 | | ng/l | | | | | | | |
| Molybdenum | 3.04 | | ng/l | | | | | | | |
| Nickel | 5.62 | | ng/l | | | | | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
1777 Sentry Pkwy, Bldg 12
Blue Bell, PA 19422

ATTN: Ms. Chelsea Saber
PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
REPORTED: 12/12/24 08:42
SUBMITTED: 12/05/24
AQS SITE CODE:
SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Blank (2412020-CCB7) Contin

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|----------|-------|--|------|--|--|--|--|--|--|-------|
| Selenium | 17.3 | | ng/l | | | | | | | |
| Thallium | 1.64 | | ng/l | | | | | | | QB-04 |
| Vanadium | -98.3 | | ng/l | | | | | | | U |
| Zinc | -37.3 | | ng/l | | | | | | | U |

Calibration Check (2412020-CCV1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|------|--------|--|--|--|
| Antimony | 20500 | | ng/l | 20000 | | 102 | 90-110 | | | |
| Arsenic | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Barium | 206000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Beryllium | 4860 | | ng/l | 5000.0 | | 97.3 | 90-110 | | | |
| Cadmium | 20700 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Chromium | 247000 | | ng/l | 240000 | | 103 | 90-110 | | | |
| Cobalt | 52700 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Copper | 2.12E6 | | ng/l | 2.0000E6 | | 106 | 90-110 | | | |
| Lead | 205000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Manganese | 527000 | | ng/l | 500000 | | 105 | 90-110 | | | |
| Molybdenum | 51600 | | ng/l | 50000 | | 103 | 90-110 | | | |
| Nickel | 126000 | | ng/l | 120000 | | 105 | 90-110 | | | |
| Selenium | 20700 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Thallium | 508 | | ng/l | 500.00 | | 102 | 90-110 | | | |
| Vanadium | 20500 | | ng/l | 20000 | | 102 | 90-110 | | | |
| Zinc | 543000 | | ng/l | 500000 | | 109 | 90-110 | | | |

Calibration Check (2412020-CCV2)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|-----|--------|--|--|--|
| Antimony | 20800 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Arsenic | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Barium | 209000 | | ng/l | 200000 | | 104 | 90-110 | | | |
| Beryllium | 5260 | | ng/l | 5000.0 | | 105 | 90-110 | | | |
| Cadmium | 20900 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Chromium | 249000 | | ng/l | 240000 | | 104 | 90-110 | | | |
| Cobalt | 52300 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Copper | 2.11E6 | | ng/l | 2.0000E6 | | 106 | 90-110 | | | |
| Lead | 206000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Manganese | 525000 | | ng/l | 500000 | | 105 | 90-110 | | | |
| Molybdenum | 51600 | | ng/l | 50000 | | 103 | 90-110 | | | |
| Nickel | 126000 | | ng/l | 120000 | | 105 | 90-110 | | | |
| Selenium | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Thallium | 503 | | ng/l | 500.00 | | 101 | 90-110 | | | |
| Vanadium | 20700 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Zinc | 545000 | | ng/l | 500000 | | 109 | 90-110 | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Check (2412020-CCV3)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|-----|--------|--|--|--|
| Antimony | 20700 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Arsenic | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Barium | 207000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Beryllium | 5120 | | ng/l | 5000.0 | | 102 | 90-110 | | | |
| Cadmium | 20800 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Chromium | 248000 | | ng/l | 240000 | | 103 | 90-110 | | | |
| Cobalt | 51800 | | ng/l | 50000 | | 104 | 90-110 | | | |
| Copper | 2.10E6 | | ng/l | 2.0000E6 | | 105 | 90-110 | | | |
| Lead | 205000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Manganese | 521000 | | ng/l | 500000 | | 104 | 90-110 | | | |
| Molybdenum | 51800 | | ng/l | 50000 | | 104 | 90-110 | | | |
| Nickel | 125000 | | ng/l | 120000 | | 104 | 90-110 | | | |
| Selenium | 20500 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Thallium | 501 | | ng/l | 500.00 | | 100 | 90-110 | | | |
| Vanadium | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Zinc | 540000 | | ng/l | 500000 | | 108 | 90-110 | | | |

Calibration Check (2412020-CCV4)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|-----|--------|--|--|--|
| Antimony | 20900 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Arsenic | 21000 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Barium | 210000 | | ng/l | 200000 | | 105 | 90-110 | | | |
| Beryllium | 5150 | | ng/l | 5000.0 | | 103 | 90-110 | | | |
| Cadmium | 21100 | | ng/l | 20000 | | 106 | 90-110 | | | |
| Chromium | 253000 | | ng/l | 240000 | | 105 | 90-110 | | | |
| Cobalt | 52800 | | ng/l | 50000 | | 106 | 90-110 | | | |
| Copper | 2.13E6 | | ng/l | 2.0000E6 | | 107 | 90-110 | | | |
| Lead | 209000 | | ng/l | 200000 | | 104 | 90-110 | | | |
| Manganese | 531000 | | ng/l | 500000 | | 106 | 90-110 | | | |
| Molybdenum | 52700 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Nickel | 127000 | | ng/l | 120000 | | 106 | 90-110 | | | |
| Selenium | 20900 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Thallium | 508 | | ng/l | 500.00 | | 102 | 90-110 | | | |
| Vanadium | 20900 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Zinc | 549000 | | ng/l | 500000 | | 110 | 90-110 | | | |

Calibration Check (2412020-CCV5)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|-----------|--------|--|------|--------|--|-----|--------|--|--|--|
| Antimony | 20900 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Arsenic | 20900 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Barium | 209000 | | ng/l | 200000 | | 104 | 90-110 | | | |
| Beryllium | 5090 | | ng/l | 5000.0 | | 102 | 90-110 | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Check (2412020-CCV5) Contin

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|-----|--------|--|--|--|
| Cadmium | 21100 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Chromium | 250000 | | ng/l | 240000 | | 104 | 90-110 | | | |
| Cobalt | 52700 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Copper | 2.15E6 | | ng/l | 2.0000E6 | | 108 | 90-110 | | | |
| Lead | 208000 | | ng/l | 200000 | | 104 | 90-110 | | | |
| Manganese | 534000 | | ng/l | 500000 | | 107 | 90-110 | | | |
| Molybdenum | 52500 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Nickel | 127000 | | ng/l | 120000 | | 106 | 90-110 | | | |
| Selenium | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Thallium | 501 | | ng/l | 500.00 | | 100 | 90-110 | | | |
| Vanadium | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Zinc | 546000 | | ng/l | 500000 | | 109 | 90-110 | | | |

Calibration Check (2412020-CCV6)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|------|--------|--|--|--------|
| Antimony | 21200 | | ng/l | 20000 | | 106 | 90-110 | | | |
| Arsenic | 21200 | | ng/l | 20000 | | 106 | 90-110 | | | |
| Barium | 207000 | | ng/l | 200000 | | 103 | 90-110 | | | |
| Beryllium | 4900 | | ng/l | 5000.0 | | 98.0 | 90-110 | | | |
| Cadmium | 21500 | | ng/l | 20000 | | 107 | 90-110 | | | |
| Chromium | 255000 | | ng/l | 240000 | | 106 | 90-110 | | | |
| Cobalt | 53200 | | ng/l | 50000 | | 106 | 90-110 | | | |
| Copper | 2.17E6 | | ng/l | 2.0000E6 | | 108 | 90-110 | | | |
| Lead | 212000 | | ng/l | 200000 | | 106 | 90-110 | | | |
| Manganese | 541000 | | ng/l | 500000 | | 108 | 90-110 | | | |
| Molybdenum | 52800 | | ng/l | 50000 | | 106 | 90-110 | | | |
| Nickel | 128000 | | ng/l | 120000 | | 107 | 90-110 | | | |
| Selenium | 21100 | | ng/l | 20000 | | 106 | 90-110 | | | |
| Thallium | 503 | | ng/l | 500.00 | | 101 | 90-110 | | | |
| Vanadium | 21100 | | ng/l | 20000 | | 106 | 90-110 | | | |
| Zinc | 558000 | | ng/l | 500000 | | 112 | 90-110 | | | LJ, QX |

Calibration Check (2412020-CCV7)

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|-----------|--------|--|------|----------|--|-----|--------|--|--|--|
| Antimony | 20800 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Arsenic | 21000 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Barium | 203000 | | ng/l | 200000 | | 102 | 90-110 | | | |
| Beryllium | 5130 | | ng/l | 5000.0 | | 103 | 90-110 | | | |
| Cadmium | 21100 | | ng/l | 20000 | | 105 | 90-110 | | | |
| Chromium | 251000 | | ng/l | 240000 | | 105 | 90-110 | | | |
| Cobalt | 52400 | | ng/l | 50000 | | 105 | 90-110 | | | |
| Copper | 2.15E6 | | ng/l | 2.0000E6 | | 108 | 90-110 | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Calibration Check (2412020-CCV7) Contin

Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|--|------|--------|--|------|--------|--|--|--|
| Lead | 210000 | | ng/l | 200000 | | 105 | 90-110 | | | |
| Manganese | 534000 | | ng/l | 500000 | | 107 | 90-110 | | | |
| Molybdenum | 52200 | | ng/l | 50000 | | 104 | 90-110 | | | |
| Nickel | 126000 | | ng/l | 120000 | | 105 | 90-110 | | | |
| Selenium | 20900 | | ng/l | 20000 | | 104 | 90-110 | | | |
| Thallium | 493 | | ng/l | 500.00 | | 98.6 | 90-110 | | | |
| Vanadium | 20600 | | ng/l | 20000 | | 103 | 90-110 | | | |
| Zinc | 547000 | | ng/l | 500000 | | 109 | 90-110 | | | |

High Cal Check (2412020-HCV1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|------|--------|--|--|--|
| Antimony | 40500 | | ng/l | 40000 | | 101 | 95-105 | | | |
| Arsenic | 40400 | | ng/l | 40000 | | 101 | 95-105 | | | |
| Barium | 402000 | | ng/l | 400000 | | 100 | 95-105 | | | |
| Beryllium | 10000 | | ng/l | 10000 | | 100 | 95-105 | | | |
| Cadmium | 40100 | | ng/l | 40000 | | 100 | 95-105 | | | |
| Chromium | 481000 | | ng/l | 480000 | | 100 | 95-105 | | | |
| Cobalt | 100000 | | ng/l | 100000 | | 100 | 95-105 | | | |
| Copper | 3.99E6 | | ng/l | 4.0000E6 | | 99.8 | 95-105 | | | |
| Lead | 404000 | | ng/l | 400000 | | 101 | 95-105 | | | |
| Manganese | 1.00E6 | | ng/l | 1.0000E6 | | 100 | 95-105 | | | |
| Molybdenum | 100000 | | ng/l | 100000 | | 100 | 95-105 | | | |
| Nickel | 240000 | | ng/l | 240000 | | 100 | 95-105 | | | |
| Selenium | 40500 | | ng/l | 40000 | | 101 | 95-105 | | | |
| Thallium | 1000 | | ng/l | 1000.0 | | 100 | 95-105 | | | |
| Vanadium | 40400 | | ng/l | 40000 | | 101 | 95-105 | | | |
| Zinc | 995000 | | ng/l | 1.0000E6 | | 99.5 | 95-105 | | | |

Initial Cal Blank (2412020-ICB1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|--|--|--|--|--|--|---|
| Antimony | 0.774 | | ng/l | | | | | | | |
| Arsenic | 0.235 | | ng/l | | | | | | | |
| Barium | 3.34 | | ng/l | | | | | | | |
| Beryllium | -0.469 | | ng/l | | | | | | | U |
| Cadmium | 0.321 | | ng/l | | | | | | | |
| Chromium | 4.34 | | ng/l | | | | | | | |
| Cobalt | 0.581 | | ng/l | | | | | | | |
| Copper | 35.8 | | ng/l | | | | | | | |
| Lead | 4.26 | | ng/l | | | | | | | |
| Manganese | 11.7 | | ng/l | | | | | | | |
| Molybdenum | 8.81 | | ng/l | | | | | | | |
| Nickel | -0.923 | | ng/l | | | | | | | U |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Initial Cal Blank (2412020-ICB1) Continuu

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|----------|-------|--|------|--|--|--|--|--|--|---|
| Selenium | 2.65 | | ng/l | | | | | | | |
| Thallium | 1.06 | | ng/l | | | | | | | |
| Vanadium | -64.7 | | ng/l | | | | | | | U |
| Zinc | -52.3 | | ng/l | | | | | | | U |

Initial Cal Check (2412020-ICV1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|------|--------|--|--|--|
| Antimony | 19600 | | ng/l | 20000 | | 97.8 | 90-110 | | | |
| Arsenic | 19600 | | ng/l | 20000 | | 98.0 | 90-110 | | | |
| Barium | 198000 | | ng/l | 200000 | | 99.0 | 90-110 | | | |
| Beryllium | 5000 | | ng/l | 5000.0 | | 100 | 90-110 | | | |
| Cadmium | 20200 | | ng/l | 20000 | | 101 | 90-110 | | | |
| Chromium | 238000 | | ng/l | 240000 | | 99.2 | 90-110 | | | |
| Cobalt | 48500 | | ng/l | 50000 | | 96.9 | 90-110 | | | |
| Copper | 2.03E6 | | ng/l | 2.0000E6 | | 102 | 90-110 | | | |
| Lead | 199000 | | ng/l | 200000 | | 99.4 | 90-110 | | | |
| Manganese | 489000 | | ng/l | 500000 | | 97.9 | 90-110 | | | |
| Molybdenum | 50400 | | ng/l | 50000 | | 101 | 90-110 | | | |
| Nickel | 121000 | | ng/l | 120000 | | 101 | 90-110 | | | |
| Selenium | 20300 | | ng/l | 20000 | | 102 | 90-110 | | | |
| Thallium | 490 | | ng/l | 500.00 | | 97.9 | 90-110 | | | |
| Vanadium | 20000 | | ng/l | 20000 | | 100 | 90-110 | | | |
| Zinc | 531000 | | ng/l | 500000 | | 106 | 90-110 | | | |

Interference Check A (2412020-IFA1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|--------|--|-----|--------|--|--|---|
| Antimony | 0.00 | | ng/l | | | | 80-120 | | | U |
| Arsenic | 0.00 | | ng/l | | | | 80-120 | | | U |
| Barium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Beryllium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Cadmium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Chromium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Cobalt | 0.00 | | ng/l | | | | 80-120 | | | U |
| Copper | 0.00 | | ng/l | | | | 80-120 | | | U |
| Lead | 0.00 | | ng/l | | | | 80-120 | | | U |
| Manganese | 0.00 | | ng/l | | | | 80-120 | | | U |
| Molybdenum | 322000 | | ng/l | 300000 | | 107 | 80-120 | | | |
| Nickel | 0.00 | | ng/l | | | | 80-120 | | | U |
| Selenium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Thallium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Vanadium | 0.00 | | ng/l | | | | 80-120 | | | U |
| Zinc | 0.00 | | ng/l | | | | 80-120 | | | U |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2412020 - B4L0602

Interference Check B (2412020-IFB1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|--|------|----------|--|------|--------|--|--|--|
| Antimony | 21100 | | ng/l | 20000 | | 105 | 80-120 | | | |
| Arsenic | 21100 | | ng/l | 20000 | | 106 | 80-120 | | | |
| Barium | 210000 | | ng/l | 200000 | | 105 | 80-120 | | | |
| Beryllium | 4700 | | ng/l | 5000.0 | | 94.0 | 80-120 | | | |
| Cadmium | 20400 | | ng/l | 20000 | | 102 | 80-120 | | | |
| Chromium | 240000 | | ng/l | 240000 | | 99.9 | 80-120 | | | |
| Cobalt | 51400 | | ng/l | 50000 | | 103 | 80-120 | | | |
| Copper | 1.98E6 | | ng/l | 2.0000E6 | | 98.8 | 80-120 | | | |
| Lead | 212000 | | ng/l | 200000 | | 106 | 80-120 | | | |
| Manganese | 535000 | | ng/l | 500000 | | 107 | 80-120 | | | |
| Molybdenum | 385000 | | ng/l | 350000 | | 110 | 80-120 | | | |
| Nickel | 120000 | | ng/l | 120000 | | 100 | 80-120 | | | |
| Selenium | 19900 | | ng/l | 20000 | | 99.4 | 80-120 | | | |
| Thallium | 536 | | ng/l | 500.00 | | 107 | 80-120 | | | |
| Vanadium | 20200 | | ng/l | 20000 | | 101 | 80-120 | | | |
| Zinc | 502000 | | ng/l | 500000 | | 100 | 80-120 | | | |

Batch B4L0602 - ICP-MS Extraction

Blank (B4L0602-BLK1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|----|---------|-----------------------|--|--|--|--|--|--|----------|
| Antimony | ND | 0.0386 | ng/m ³ Air | | | | | | | SL, U |
| Arsenic | ND | 0.00937 | ng/m ³ Air | | | | | | | U |
| Barium | ND | 1.07 | ng/m ³ Air | | | | | | | QB-01, U |
| Beryllium | ND | 0.00320 | ng/m ³ Air | | | | | | | U |
| Cadmium | ND | 0.0741 | ng/m ³ Air | | | | | | | U |
| Chromium | ND | 2.21 | ng/m ³ Air | | | | | | | U |
| Cobalt | ND | 0.0436 | ng/m ³ Air | | | | | | | U |
| Copper | ND | 2.63 | ng/m ³ Air | | | | | | | U |
| Lead | ND | 0.214 | ng/m ³ Air | | | | | | | U |
| Manganese | ND | 1.89 | ng/m ³ Air | | | | | | | U |
| Molybdenum | ND | 0.359 | ng/m ³ Air | | | | | | | U |
| Nickel | ND | 0.652 | ng/m ³ Air | | | | | | | U |
| Selenium | ND | 0.00896 | ng/m ³ Air | | | | | | | U |
| Thallium | ND | 5.89E-4 | ng/m ³ Air | | | | | | | U |
| Vanadium | ND | 0.0529 | ng/m ³ Air | | | | | | | U |
| Zinc | ND | 76.8 | ng/m ³ Air | | | | | | | U |

LCS (B4L0602-BS1)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|----------|-------|---------|-----------------------|--------|--|------|--------|--|--|-------|
| Antimony | 0.604 | 0.0386 | ng/m ³ Air | 1.3829 | | 43.7 | 80-120 | | | SL |
| Arsenic | 2.78 | 0.00937 | ng/m ³ Air | 2.7658 | | 101 | 80-120 | | | |
| Barium | 28.6 | 1.07 | ng/m ³ Air | 27.658 | | 103 | 80-120 | | | QB-01 |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

LCS (B4L0602-BS1) Continued

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|-------|---------|-----------------------|---------|--|------|--------|--|--|--|
| Beryllium | 1.33 | 0.00320 | ng/m ³ Air | 1.3829 | | 96.4 | 80-120 | | | |
| Cadmium | 1.43 | 0.0741 | ng/m ³ Air | 1.3829 | | 103 | 80-120 | | | |
| Chromium | 16.0 | 2.21 | ng/m ³ Air | 13.829 | | 116 | 80-120 | | | |
| Cobalt | 1.41 | 0.0436 | ng/m ³ Air | 1.3829 | | 102 | 80-120 | | | |
| Copper | 30.4 | 2.63 | ng/m ³ Air | 27.658 | | 110 | 80-120 | | | |
| Lead | 14.0 | 0.214 | ng/m ³ Air | 13.829 | | 101 | 80-120 | | | |
| Manganese | 9.12 | 1.89 | ng/m ³ Air | 8.2975 | | 110 | 80-120 | | | |
| Molybdenum | 1.59 | 0.359 | ng/m ³ Air | 1.3829 | | 115 | 80-120 | | | |
| Nickel | 3.14 | 0.652 | ng/m ³ Air | 2.7658 | | 113 | 80-120 | | | |
| Selenium | 2.80 | 0.00896 | ng/m ³ Air | 2.7658 | | 101 | 80-120 | | | |
| Thallium | 0.140 | 5.89E-4 | ng/m ³ Air | 0.13829 | | 101 | 80-120 | | | |
| Vanadium | 2.80 | 0.0529 | ng/m ³ Air | 2.7658 | | 101 | 80-120 | | | |
| Zinc | 94.5 | 76.8 | ng/m ³ Air | 82.975 | | 114 | 80-120 | | | |

LCS (B4L0602-BS2)

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|-------|---------|-----------------------|---------|--|------|--------|--|--|-------|
| Antimony | 0.653 | 0.0386 | ng/m ³ Air | 1.3829 | | 47.2 | 80-120 | | | SL |
| Arsenic | 2.77 | 0.00937 | ng/m ³ Air | 2.7658 | | 100 | 80-120 | | | |
| Barium | 28.9 | 1.07 | ng/m ³ Air | 27.658 | | 105 | 80-120 | | | QB-01 |
| Beryllium | 1.32 | 0.00320 | ng/m ³ Air | 1.3829 | | 95.6 | 80-120 | | | |
| Cadmium | 1.44 | 0.0741 | ng/m ³ Air | 1.3829 | | 104 | 80-120 | | | |
| Chromium | 15.8 | 2.21 | ng/m ³ Air | 13.829 | | 114 | 80-120 | | | |
| Cobalt | 1.41 | 0.0436 | ng/m ³ Air | 1.3829 | | 102 | 80-120 | | | |
| Copper | 30.1 | 2.63 | ng/m ³ Air | 27.658 | | 109 | 80-120 | | | |
| Lead | 14.0 | 0.214 | ng/m ³ Air | 13.829 | | 102 | 80-120 | | | |
| Manganese | 9.05 | 1.89 | ng/m ³ Air | 8.2975 | | 109 | 80-120 | | | |
| Molybdenum | 1.65 | 0.359 | ng/m ³ Air | 1.3829 | | 119 | 80-120 | | | |
| Nickel | 3.10 | 0.652 | ng/m ³ Air | 2.7658 | | 112 | 80-120 | | | |
| Selenium | 2.76 | 0.00896 | ng/m ³ Air | 2.7658 | | 99.9 | 80-120 | | | |
| Thallium | 0.141 | 5.89E-4 | ng/m ³ Air | 0.13829 | | 102 | 80-120 | | | |
| Vanadium | 2.80 | 0.0529 | ng/m ³ Air | 2.7658 | | 101 | 80-120 | | | |
| Zinc | 94.3 | 76.8 | ng/m ³ Air | 82.975 | | 114 | 80-120 | | | |

Duplicate (B4L0602-DUP1)

Source: 4120531-13

Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|-----------|--------|---------|-----------------------|--|--------|--|-------|----|--|-------|
| Antimony | 0.0889 | 0.0334 | ng/m ³ Air | | 0.102 | | 13.8 | 10 | | SL |
| Arsenic | 0.307 | 0.00812 | ng/m ³ Air | | 0.311 | | 1.31 | 10 | | |
| Barium | 5.63 | 0.927 | ng/m ³ Air | | 5.68 | | 0.862 | 10 | | QB-01 |
| Beryllium | 0.0278 | 0.00277 | ng/m ³ Air | | 0.0283 | | 1.82 | 10 | | |
| Cadmium | ND | 0.0642 | ng/m ³ Air | | ND | | | 10 | | U |
| Chromium | 3.21 | 1.91 | ng/m ³ Air | | 3.17 | | 1.04 | 10 | | |
| Cobalt | 0.725 | 0.0378 | ng/m ³ Air | | 0.720 | | 0.681 | 10 | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

Duplicate (B4L0602-DUP1) Continued Source: 4120531-13 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|---------|---------|-----------------------|--|---------|--|--|-------|----|---|
| Copper | 29.5 | 2.28 | ng/m ³ Air | | 28.3 | | | 4.07 | 10 | |
| Lead | 0.974 | 0.185 | ng/m ³ Air | | 0.969 | | | 0.614 | 10 | |
| Manganese | 24.3 | 1.64 | ng/m ³ Air | | 24.2 | | | 0.224 | 10 | |
| Molybdenum | 1.33 | 0.311 | ng/m ³ Air | | 1.32 | | | 0.815 | 10 | |
| Nickel | 1.87 | 0.565 | ng/m ³ Air | | 1.93 | | | 2.84 | 10 | |
| Selenium | 0.199 | 0.00776 | ng/m ³ Air | | 0.206 | | | 3.26 | 10 | |
| Thallium | 0.00201 | 5.10E-4 | ng/m ³ Air | | 0.00188 | | | 6.66 | 10 | |
| Vanadium | 1.91 | 0.0458 | ng/m ³ Air | | 1.90 | | | 0.514 | 10 | |
| Zinc | ND | 66.5 | ng/m ³ Air | | ND | | | | 10 | U |

Duplicate (B4L0602-DUP2) Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|---------|---------|-----------------------|--|---------|--|--|-------|----|-------|
| Antimony | 0.109 | 0.0328 | ng/m ³ Air | | 0.104 | | | 4.76 | 10 | SL |
| Arsenic | 0.210 | 0.00797 | ng/m ³ Air | | 0.212 | | | 1.12 | 10 | |
| Barium | 4.58 | 0.910 | ng/m ³ Air | | 4.57 | | | 0.218 | 10 | QB-01 |
| Beryllium | 0.0122 | 0.00272 | ng/m ³ Air | | 0.0125 | | | 2.22 | 10 | |
| Cadmium | ND | 0.0630 | ng/m ³ Air | | ND | | | | 10 | U |
| Chromium | 2.59 | 1.88 | ng/m ³ Air | | 2.71 | | | 4.34 | 10 | |
| Cobalt | 0.464 | 0.0371 | ng/m ³ Air | | 0.474 | | | 2.16 | 10 | |
| Copper | 52.0 | 2.24 | ng/m ³ Air | | 50.2 | | | 3.35 | 10 | |
| Lead | 0.795 | 0.182 | ng/m ³ Air | | 0.671 | | | 17.0 | 10 | |
| Manganese | 12.6 | 1.61 | ng/m ³ Air | | 12.8 | | | 1.47 | 10 | |
| Molybdenum | 2.68 | 0.305 | ng/m ³ Air | | 2.57 | | | 4.31 | 10 | |
| Nickel | 1.47 | 0.554 | ng/m ³ Air | | 1.68 | | | 13.2 | 10 | |
| Selenium | 0.159 | 0.00762 | ng/m ³ Air | | 0.157 | | | 1.13 | 10 | |
| Thallium | 0.00138 | 5.01E-4 | ng/m ³ Air | | 0.00144 | | | 4.40 | 10 | |
| Vanadium | 1.50 | 0.0450 | ng/m ³ Air | | 1.53 | | | 2.12 | 10 | |
| Zinc | ND | 65.3 | ng/m ³ Air | | ND | | | | 10 | U |

Duplicate (B4L0602-DUP3) Source: 4120531-20 Prepared: 12/06/24 Analyzed: 12/07/24

| | | | | | | | | | | |
|------------|--------|---------|-----------------------|--|--------|--|--|-------|----|-------|
| Antimony | 0.220 | 0.0300 | ng/m ³ Air | | 0.218 | | | 0.860 | 10 | SL |
| Arsenic | 0.376 | 0.00727 | ng/m ³ Air | | 0.365 | | | 2.80 | 10 | |
| Barium | 9.50 | 0.831 | ng/m ³ Air | | 9.26 | | | 2.59 | 10 | QB-01 |
| Beryllium | 0.0240 | 0.00248 | ng/m ³ Air | | 0.0263 | | | 9.11 | 10 | |
| Cadmium | ND | 0.0575 | ng/m ³ Air | | ND | | | | 10 | U |
| Chromium | 4.33 | 1.72 | ng/m ³ Air | | 4.20 | | | 3.07 | 10 | |
| Cobalt | 0.995 | 0.0339 | ng/m ³ Air | | 0.968 | | | 2.80 | 10 | |
| Copper | 57.5 | 2.04 | ng/m ³ Air | | 56.1 | | | 2.54 | 10 | |
| Lead | 1.33 | 0.166 | ng/m ³ Air | | 1.30 | | | 2.45 | 10 | |
| Manganese | 27.0 | 1.47 | ng/m ³ Air | | 26.2 | | | 2.83 | 10 | |
| Molybdenum | 2.56 | 0.279 | ng/m ³ Air | | 2.51 | | | 2.22 | 10 | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

| Duplicate (B4L0602-DUP3) Continued | Source: 4120531-20 | | | Prepared: 12/06/24 | | Analyzed: 12/07/24 | | | | |
|---|---------------------------|---------|-----------------------|--------------------|--|--------------------|------|----|-------|--|
| Nickel | 2.98 | 0.506 | ng/m ³ Air | 2.91 | | | 2.36 | 10 | | |
| Selenium | 0.207 | 0.00696 | ng/m ³ Air | 0.189 | | | 8.93 | 10 | | |
| Thallium | 0.00179 | 4.57E-4 | ng/m ³ Air | 0.00185 | | | 3.56 | 10 | QB-04 | |
| Vanadium | 3.00 | 0.0411 | ng/m ³ Air | 2.94 | | | 2.15 | 10 | | |
| Zinc | ND | 59.6 | ng/m ³ Air | ND | | | | 10 | U | |

| Duplicate (B4L0602-DUP4) | Source: 4120531-31 | | | Prepared: 12/06/24 | | Analyzed: 12/07/24 | | | | |
|---------------------------------|---------------------------|---------|-----------------------|--------------------|--|--------------------|--------|----|-----------|--|
| Antimony | 0.0489 | 0.0323 | ng/m ³ Air | 0.0495 | | | 1.30 | 10 | SL | |
| Arsenic | 0.256 | 0.00784 | ng/m ³ Air | 0.253 | | | 1.02 | 10 | | |
| Barium | 4.42 | 0.895 | ng/m ³ Air | 4.43 | | | 0.277 | 10 | QB-01 | |
| Beryllium | 0.0532 | 0.00268 | ng/m ³ Air | 0.0500 | | | 6.18 | 10 | | |
| Cadmium | ND | 0.0620 | ng/m ³ Air | ND | | | | 10 | U | |
| Chromium | 5.81 | 1.85 | ng/m ³ Air | 5.81 | | | 0.0328 | 10 | | |
| Cobalt | 1.22 | 0.0365 | ng/m ³ Air | 1.20 | | | 1.28 | 10 | | |
| Copper | 48.9 | 2.20 | ng/m ³ Air | 48.5 | | | 0.756 | 10 | | |
| Lead | 0.388 | 0.179 | ng/m ³ Air | 0.389 | | | 0.0254 | 10 | | |
| Manganese | 28.4 | 1.58 | ng/m ³ Air | 28.2 | | | 0.741 | 10 | | |
| Molybdenum | 2.20 | 0.300 | ng/m ³ Air | 2.20 | | | 0.0202 | 10 | | |
| Nickel | 3.28 | 0.545 | ng/m ³ Air | 3.25 | | | 0.805 | 10 | | |
| Selenium | 0.245 | 0.00749 | ng/m ³ Air | 0.257 | | | 4.65 | 10 | | |
| Thallium | 0.00188 | 4.93E-4 | ng/m ³ Air | 0.00187 | | | 0.637 | 10 | QB-04 | |
| Vanadium | 2.68 | 0.0443 | ng/m ³ Air | 2.66 | | | 0.576 | 10 | | |
| Zinc | ND | 64.2 | ng/m ³ Air | ND | | | | 10 | LJ, QX, U | |

| Matrix Spike (B4L0602-MS1) | Source: 4120531-13 | | | Prepared & Analyzed: 12/06/24 | | | | | | |
|-----------------------------------|---------------------------|---------|-----------------------|-------------------------------|---------|------|--------|--|--|-------|
| Antimony | 0.744 | 0.0334 | ng/m ³ Air | 1.1977 | 0.102 | 53.6 | 80-120 | | | SL |
| Arsenic | 2.63 | 0.00812 | ng/m ³ Air | 2.3954 | 0.311 | 96.8 | 80-120 | | | |
| Barium | 30.3 | 0.927 | ng/m ³ Air | 23.954 | 5.68 | 103 | 80-120 | | | QB-01 |
| Beryllium | 1.18 | 0.00277 | ng/m ³ Air | 1.1977 | 0.0283 | 96.4 | 80-120 | | | |
| Cadmium | 1.23 | 0.0642 | ng/m ³ Air | 1.1977 | ND | 103 | 80-120 | | | |
| Chromium | 15.7 | 1.91 | ng/m ³ Air | 11.977 | 3.17 | 104 | 80-120 | | | |
| Cobalt | 1.93 | 0.0378 | ng/m ³ Air | 1.1977 | 0.720 | 101 | 80-120 | | | |
| Copper | 53.8 | 2.28 | ng/m ³ Air | 23.954 | 28.3 | 107 | 80-120 | | | |
| Lead | 13.4 | 0.185 | ng/m ³ Air | 11.977 | 0.969 | 104 | 80-120 | | | |
| Manganese | 31.9 | 1.64 | ng/m ³ Air | 7.1862 | 24.2 | 107 | 80-120 | | | |
| Molybdenum | 2.47 | 0.311 | ng/m ³ Air | 1.1977 | 1.32 | 95.7 | 80-120 | | | |
| Nickel | 4.34 | 0.565 | ng/m ³ Air | 2.3954 | 1.93 | 101 | 80-120 | | | |
| Selenium | 2.57 | 0.00776 | ng/m ³ Air | 2.3954 | 0.206 | 98.6 | 80-120 | | | |
| Thallium | 0.124 | 5.10E-4 | ng/m ³ Air | 0.11977 | 0.00188 | 102 | 80-120 | | | |
| Vanadium | 4.30 | 0.0458 | ng/m ³ Air | 2.3954 | 1.90 | 100 | 80-120 | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

Matrix Spike (B4L0602-MS1) Continued Source: 4120531-13 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------|------|------|-----------------------|--------|----|-----|--------|--|--|--|
| Zinc | 89.1 | 66.5 | ng/m ³ Air | 71.862 | ND | 124 | 80-120 | | | |
|------|------|------|-----------------------|--------|----|-----|--------|--|--|--|

Matrix Spike (B4L0602-MS2) Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|-------|---------|-----------------------|---------|---------|------|--------|--|--|-------|
| Antimony | 0.775 | 0.0328 | ng/m ³ Air | 1.1761 | 0.104 | 57.0 | 80-120 | | | SL |
| Arsenic | 2.49 | 0.00797 | ng/m ³ Air | 2.3522 | 0.212 | 97.0 | 80-120 | | | |
| Barium | 28.6 | 0.910 | ng/m ³ Air | 23.522 | 4.57 | 102 | 80-120 | | | QB-01 |
| Beryllium | 1.15 | 0.00272 | ng/m ³ Air | 1.1761 | 0.0125 | 96.6 | 80-120 | | | |
| Cadmium | 1.21 | 0.0630 | ng/m ³ Air | 1.1761 | ND | 103 | 80-120 | | | |
| Chromium | 14.9 | 1.88 | ng/m ³ Air | 11.761 | 2.71 | 103 | 80-120 | | | |
| Cobalt | 1.63 | 0.0371 | ng/m ³ Air | 1.1761 | 0.474 | 98.2 | 80-120 | | | |
| Copper | 75.0 | 2.24 | ng/m ³ Air | 23.522 | 50.2 | 105 | 80-120 | | | |
| Lead | 12.7 | 0.182 | ng/m ³ Air | 11.761 | 0.671 | 102 | 80-120 | | | |
| Manganese | 19.9 | 1.61 | ng/m ³ Air | 7.0566 | 12.8 | 101 | 80-120 | | | |
| Molybdenum | 3.80 | 0.305 | ng/m ³ Air | 1.1761 | 2.57 | 105 | 80-120 | | | |
| Nickel | 3.93 | 0.554 | ng/m ³ Air | 2.3522 | 1.68 | 95.6 | 80-120 | | | |
| Selenium | 2.47 | 0.00762 | ng/m ³ Air | 2.3522 | 0.157 | 98.3 | 80-120 | | | |
| Thallium | 0.118 | 5.01E-4 | ng/m ³ Air | 0.11761 | 0.00144 | 99.4 | 80-120 | | | |
| Vanadium | 3.78 | 0.0450 | ng/m ³ Air | 2.3522 | 1.53 | 95.6 | 80-120 | | | |
| Zinc | 88.1 | 65.3 | ng/m ³ Air | 70.566 | ND | 125 | 80-120 | | | |

Matrix Spike Dup (B4L0602-MSD1) Source: 4120531-13 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|-------|---------|-----------------------|---------|---------|------|--------|-------|----|-------|
| Antimony | 0.711 | 0.0334 | ng/m ³ Air | 1.1977 | 0.102 | 50.8 | 80-120 | 4.55 | 20 | SL |
| Arsenic | 2.65 | 0.00812 | ng/m ³ Air | 2.3954 | 0.311 | 97.7 | 80-120 | 0.847 | 20 | |
| Barium | 29.9 | 0.927 | ng/m ³ Air | 23.954 | 5.68 | 101 | 80-120 | 1.27 | 20 | QB-01 |
| Beryllium | 1.17 | 0.00277 | ng/m ³ Air | 1.1977 | 0.0283 | 95.1 | 80-120 | 1.34 | 20 | |
| Cadmium | 1.22 | 0.0642 | ng/m ³ Air | 1.1977 | ND | 102 | 80-120 | 1.29 | 20 | |
| Chromium | 15.4 | 1.91 | ng/m ³ Air | 11.977 | 3.17 | 102 | 80-120 | 1.64 | 20 | |
| Cobalt | 1.90 | 0.0378 | ng/m ³ Air | 1.1977 | 0.720 | 98.7 | 80-120 | 1.30 | 20 | |
| Copper | 56.2 | 2.28 | ng/m ³ Air | 23.954 | 28.3 | 117 | 80-120 | 4.45 | 20 | |
| Lead | 13.3 | 0.185 | ng/m ³ Air | 11.977 | 0.969 | 103 | 80-120 | 0.677 | 20 | |
| Manganese | 31.4 | 1.64 | ng/m ³ Air | 7.1862 | 24.2 | 99.9 | 80-120 | 1.67 | 20 | |
| Molybdenum | 2.52 | 0.311 | ng/m ³ Air | 1.1977 | 1.32 | 100 | 80-120 | 2.16 | 20 | |
| Nickel | 4.26 | 0.565 | ng/m ³ Air | 2.3954 | 1.93 | 97.5 | 80-120 | 1.88 | 20 | |
| Selenium | 2.56 | 0.00776 | ng/m ³ Air | 2.3954 | 0.206 | 98.3 | 80-120 | 0.290 | 20 | |
| Thallium | 0.122 | 5.10E-4 | ng/m ³ Air | 0.11977 | 0.00188 | 100 | 80-120 | 1.58 | 20 | |
| Vanadium | 4.24 | 0.0458 | ng/m ³ Air | 2.3954 | 1.90 | 97.8 | 80-120 | 1.45 | 20 | |
| Zinc | 88.3 | 66.5 | ng/m ³ Air | 71.862 | ND | 123 | 80-120 | 0.871 | 20 | |

Matrix Spike Dup (B4L0602-MSD2) Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|----------|-------|---------|-----------------------|--------|-------|------|--------|------|----|----|
| Antimony | 0.803 | 0.0328 | ng/m ³ Air | 1.1761 | 0.104 | 59.4 | 80-120 | 3.52 | 20 | SL |
| Arsenic | 2.55 | 0.00797 | ng/m ³ Air | 2.3522 | 0.212 | 99.3 | 80-120 | 2.13 | 20 | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

Matrix Spike Dup (B4L0602-MSD2) ContirSource: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|-------|---------|-----------------------|---------|---------|------|--------|-------|----|-------|
| Barium | 28.9 | 0.910 | ng/m ³ Air | 23.522 | 4.57 | 103 | 80-120 | 0.918 | 20 | QB-01 |
| Beryllium | 1.18 | 0.00272 | ng/m ³ Air | 1.1761 | 0.0125 | 99.2 | 80-120 | 2.65 | 20 | |
| Cadmium | 1.23 | 0.0630 | ng/m ³ Air | 1.1761 | ND | 104 | 80-120 | 1.50 | 20 | |
| Chromium | 15.0 | 1.88 | ng/m ³ Air | 11.761 | 2.71 | 104 | 80-120 | 0.575 | 20 | |
| Cobalt | 1.64 | 0.0371 | ng/m ³ Air | 1.1761 | 0.474 | 98.9 | 80-120 | 0.523 | 20 | |
| Copper | 75.4 | 2.24 | ng/m ³ Air | 23.522 | 50.2 | 107 | 80-120 | 0.599 | 20 | |
| Lead | 12.8 | 0.182 | ng/m ³ Air | 11.761 | 0.671 | 103 | 80-120 | 0.806 | 20 | |
| Manganese | 20.4 | 1.61 | ng/m ³ Air | 7.0566 | 12.8 | 107 | 80-120 | 2.06 | 20 | |
| Molybdenum | 3.83 | 0.305 | ng/m ³ Air | 1.1761 | 2.57 | 108 | 80-120 | 0.905 | 20 | |
| Nickel | 3.94 | 0.554 | ng/m ³ Air | 2.3522 | 1.68 | 96.1 | 80-120 | 0.345 | 20 | |
| Selenium | 2.56 | 0.00762 | ng/m ³ Air | 2.3522 | 0.157 | 102 | 80-120 | 3.79 | 20 | |
| Thallium | 0.120 | 5.01E-4 | ng/m ³ Air | 0.11761 | 0.00144 | 101 | 80-120 | 1.77 | 20 | |
| Vanadium | 3.90 | 0.0450 | ng/m ³ Air | 2.3522 | 1.53 | 101 | 80-120 | 3.05 | 20 | |
| Zinc | 88.4 | 65.3 | ng/m ³ Air | 70.566 | ND | 125 | 80-120 | 0.335 | 20 | |

Post Spike (B4L0602-PS1) Source: 4120531-13 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|---------|-----------------------|-----------|---------|------|--------|--|--|-------|
| Antimony | 0.334 | 0.0334 | ng/m ³ Air | 0.23954 | 0.102 | 96.8 | 75-125 | | | SL |
| Arsenic | 1.46 | 0.00812 | ng/m ³ Air | 1.1977 | 0.311 | 95.7 | 75-125 | | | |
| Barium | 8.01 | 0.927 | ng/m ³ Air | 2.3954 | 5.68 | 97.3 | 75-125 | | | QB-01 |
| Beryllium | 0.261 | 0.00277 | ng/m ³ Air | 0.23954 | 0.0283 | 97.3 | 75-125 | | | |
| Cadmium | 0.135 | 0.0642 | ng/m ³ Air | 0.11977 | ND | 113 | 75-125 | | | |
| Chromium | 4.40 | 1.91 | ng/m ³ Air | 1.1977 | 3.17 | 102 | 75-125 | | | |
| Cobalt | 0.959 | 0.0378 | ng/m ³ Air | 0.23954 | 0.720 | 99.7 | 75-125 | | | |
| Copper | 40.4 | 2.28 | ng/m ³ Air | 11.977 | 28.3 | 101 | 75-125 | | | |
| Lead | 24.8 | 0.185 | ng/m ³ Air | 23.954 | 0.969 | 99.6 | 75-125 | | | |
| Manganese | 26.9 | 1.64 | ng/m ³ Air | 2.3954 | 24.2 | 111 | 75-125 | | | |
| Molybdenum | 2.44 | 0.311 | ng/m ³ Air | 1.1977 | 1.32 | 93.9 | 75-125 | | | |
| Nickel | 4.30 | 0.565 | ng/m ³ Air | 2.3954 | 1.93 | 99.1 | 75-125 | | | |
| Selenium | 1.35 | 0.00776 | ng/m ³ Air | 1.1977 | 0.206 | 95.8 | 75-125 | | | |
| Thallium | 0.0611 | 5.10E-4 | ng/m ³ Air | 5.9885E-2 | 0.00188 | 98.9 | 75-125 | | | |
| Vanadium | 3.07 | 0.0458 | ng/m ³ Air | 1.1977 | 1.90 | 97.9 | 75-125 | | | |
| Zinc | ND | 66.5 | ng/m ³ Air | 23.954 | ND | | 75-125 | | | U |

Post Spike (B4L0602-PS2) Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|-----------|-------|---------|-----------------------|---------|--------|------|--------|--|--|-------|
| Antimony | 0.335 | 0.0328 | ng/m ³ Air | 0.23522 | 0.104 | 98.0 | 75-125 | | | SL |
| Arsenic | 1.33 | 0.00797 | ng/m ³ Air | 1.1761 | 0.212 | 95.1 | 75-125 | | | |
| Barium | 6.88 | 0.910 | ng/m ³ Air | 2.3522 | 4.57 | 98.2 | 75-125 | | | QB-01 |
| Beryllium | 0.268 | 0.00272 | ng/m ³ Air | 0.23522 | 0.0125 | 109 | 75-125 | | | |
| Cadmium | 0.130 | 0.0630 | ng/m ³ Air | 0.11761 | ND | 110 | 75-125 | | | |
| Chromium | 3.83 | 1.88 | ng/m ³ Air | 1.1761 | 2.71 | 95.1 | 75-125 | | | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

Post Spike (B4L0602-PS2) Continued Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|--------|---------|-----------------------|-----------|---------|------|--------|--|--|---|
| Cobalt | 0.702 | 0.0371 | ng/m ³ Air | 0.23522 | 0.474 | 96.9 | 75-125 | | | |
| Copper | 62.5 | 2.24 | ng/m ³ Air | 11.761 | 50.2 | 104 | 75-125 | | | |
| Lead | 24.1 | 0.182 | ng/m ³ Air | 23.522 | 0.671 | 99.8 | 75-125 | | | |
| Manganese | 15.2 | 1.61 | ng/m ³ Air | 2.3522 | 12.8 | 101 | 75-125 | | | |
| Molybdenum | 3.65 | 0.305 | ng/m ³ Air | 1.1761 | 2.57 | 92.1 | 75-125 | | | |
| Nickel | 4.02 | 0.554 | ng/m ³ Air | 2.3522 | 1.68 | 99.2 | 75-125 | | | |
| Selenium | 1.30 | 0.00762 | ng/m ³ Air | 1.1761 | 0.157 | 97.5 | 75-125 | | | |
| Thallium | 0.0594 | 5.01E-4 | ng/m ³ Air | 5.8805E-2 | 0.00144 | 98.5 | 75-125 | | | |
| Vanadium | 2.65 | 0.0450 | ng/m ³ Air | 1.1761 | 1.53 | 94.9 | 75-125 | | | |
| Zinc | ND | 65.3 | ng/m ³ Air | 23.522 | ND | | 75-125 | | | U |

Dilution Check (B4L0602-SRL1) Source: 4120531-13 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|---------|---------|-----------------------|--|--------|--|--|-------|----|-------|
| Antimony | ND | 0.167 | ng/m ³ Air | | ND | | | | 10 | SL, U |
| Arsenic | 0.315 | 0.0406 | ng/m ³ Air | | 0.311 | | | 1.39 | 10 | |
| Barium | 5.46 | 4.63 | ng/m ³ Air | | 5.68 | | | 4.06 | 10 | QB-01 |
| Beryllium | 0.0276 | 0.0139 | ng/m ³ Air | | 0.0283 | | | 2.68 | 10 | |
| Cadmium | ND | 0.321 | ng/m ³ Air | | ND | | | | 10 | U |
| Chromium | ND | 9.57 | ng/m ³ Air | | ND | | | | 10 | U |
| Cobalt | 0.718 | 0.189 | ng/m ³ Air | | 0.720 | | | 0.217 | 10 | |
| Copper | 28.1 | 11.4 | ng/m ³ Air | | 28.3 | | | 0.657 | 10 | |
| Lead | ND | 0.927 | ng/m ³ Air | | 0.969 | | | | 10 | U |
| Manganese | 24.0 | 8.18 | ng/m ³ Air | | 24.2 | | | 0.741 | 10 | |
| Molybdenum | ND | 1.55 | ng/m ³ Air | | ND | | | | 10 | U |
| Nickel | ND | 2.82 | ng/m ³ Air | | ND | | | | 10 | U |
| Selenium | 0.202 | 0.0388 | ng/m ³ Air | | 0.206 | | | 1.88 | 10 | |
| Thallium | 0.00375 | 0.00255 | ng/m ³ Air | | ND | | | 66.2 | 10 | |
| Vanadium | 1.80 | 0.229 | ng/m ³ Air | | 1.90 | | | 5.01 | 10 | |
| Zinc | ND | 333 | ng/m ³ Air | | ND | | | | 10 | U |

Dilution Check (B4L0602-SRL2) Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|-----------|-------|--------|-----------------------|--|-------|--|--|--------|----|-------|
| Antimony | ND | 0.164 | ng/m ³ Air | | ND | | | | 10 | SL, U |
| Arsenic | 0.217 | 0.0398 | ng/m ³ Air | | 0.212 | | | 2.25 | 10 | |
| Barium | 4.58 | 4.55 | ng/m ³ Air | | 4.57 | | | 0.0671 | 10 | QB-01 |
| Beryllium | ND | 0.0136 | ng/m ³ Air | | ND | | | | 10 | U |
| Cadmium | ND | 0.315 | ng/m ³ Air | | ND | | | | 10 | U |
| Chromium | ND | 9.40 | ng/m ³ Air | | ND | | | | 10 | U |
| Cobalt | 0.486 | 0.185 | ng/m ³ Air | | 0.474 | | | 2.33 | 10 | |
| Copper | 52.6 | 11.2 | ng/m ³ Air | | 50.2 | | | 4.62 | 10 | |
| Lead | ND | 0.910 | ng/m ³ Air | | ND | | | | 10 | U |
| Manganese | 13.2 | 8.04 | ng/m ³ Air | | 12.8 | | | 2.87 | 10 | |

Eastern Research Group

The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
 1777 Sentry Pkwy, Bldg 12
 Blue Bell, PA 19422
 ATTN: Ms. Chelsea Saber
 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001
 REPORTED: 12/12/24 08:42
 SUBMITTED: 12/05/24
 AQS SITE CODE:
 SITE CODE: Lahaina fires

| Analyte | Result | PQL | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B4L0602 - ICP-MS Extraction

Dilution Check (B4L0602-SRL2) Continue Source: 4120531-05 Prepared & Analyzed: 12/06/24

| | | | | | | | | | | |
|------------|---------|---------|-----------------------|--|-------|--|--|------|----|---|
| Molybdenum | 2.60 | 1.53 | ng/m ³ Air | | 2.57 | | | 1.40 | 10 | |
| Nickel | ND | 2.77 | ng/m ³ Air | | ND | | | | 10 | U |
| Selenium | 0.165 | 0.0381 | ng/m ³ Air | | 0.157 | | | 5.12 | 10 | |
| Thallium | 0.00325 | 0.00250 | ng/m ³ Air | | ND | | | 77.4 | 10 | |
| Vanadium | 1.51 | 0.225 | ng/m ³ Air | | 1.53 | | | 1.15 | 10 | |
| Zinc | ND | 327 | ng/m ³ Air | | ND | | | | 10 | U |



CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.
1777 Sentry Pkwy, Bldg 12
Blue Bell, PA 19422
ATTN: Ms. Chelsea Saber
PHONE: (703) 885-5495 **FAX:**

FILE #: 4205.00.003.001
REPORTED: 12/12/24 08:42
SUBMITTED: 12/05/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Notes and Definitions

- U Under Detection Limit
- SL The spike recovery was outside acceptance limits. Reported value may be biased low.
- QX Compound does not meet QC criteria. Results should be considered an estimate.
- QB-04 Analyte exceeds continuing calibration blank criteria
- QB-01 Analyte exceeds method blank criteria
- LJ Identification of analyte is acceptable; reported value is an estimate.
- FB-01 Analyte exceeds Field Blank criteria.
- E The concentration for this analyte is an estimated value above the calibration range of the instrument.
- ND Analyte NOT DETECTED
- NR Not Reported
- MDL Method Detection Limit
- RPD Relative Percent Difference

Note: This test is accredited under the 2016 TNI Standard.

Stage 1 Data Verification Checklist – Metals
HDOH CAB – Ambient Community Air Sampling – Lahaina
Task Order No. 23141

Reviewed by:

Kierra Johnson 12/19/2024 and Shanna Vasser 12/19/2024

Laboratory: Eastern Research Group – Morrisville, NC

Collection date(s): 11/21/24 – 11/27/24

Report No: 4120531

- √ 1. Chain of custody (CoC) documentation is present.
- √ 2. Sample receipt condition information is present and acceptable.
- √ 3. Laboratory conducting the analysis is identified.
- √ 4. All samples submitted to the laboratory are accounted for.
- √ 5. Requested analytical methods were performed.
- √ 6. Analysis dates are provided.
- √ 7. Analyte results are provided.
- √ 8. Result qualifiers and definitions are provided.
- √ 9. Result units are reported.
- NA 10. Requested reporting limits are present.
- √ 11. Method detection limits are present.
- √ 12. Sample collection date and time are present.
- X 13. No detections in field QC blanks (lot/media blanks, field blanks, etc.).

Discrepancies:

- 13. Field blank detections above the method detection limit were reported for arsenic and barium in MFL-FB01-112224-HM, for antimony, arsenic, and barium in MFL-FB01-112424-HM, and for arsenic in MFL-FB01-112624-HM.

Notes: None.