

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

**February 13 through February 19, 2025**

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 Hawaii Department of Health (HDOH) advises otherwise.

Particulate monitoring and air sampling occurred from February 13 through February 19, 2025, at the community locations listed below and shown on **Figure 1**.

- WW Pump Station #4 (AM-02)
- Opukea Townhomes (AM-05)
- Lahaina Pump Station #6 (AM-08)
- Maria Lanakila Catholic Church (AM-09)

At the request of HDOH, Tetra Tech demobilized on February 19 due to the completion of debris removal activities. Demobilizations took place between the hours of 11:00 and 14:00 on February 19. During this period, the field team shutdown the air monitoring and sampling stations and demobilized the equipment which included shipping the monitoring equipment off the island the following day, February 20.

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 ( $\mu\text{m}$ ), 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 "PM<sub>10</sub>". Monitoring for PM<sub>10</sub> was conducted 24 hours a day, 7 days a week from February 13 through February 19, 2025 at each of the community locations. Ambient air monitoring results were compared to the National Ambient Air Quality Standard (NAAQS) for PM<sub>10</sub>, 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  $\mu\text{m}$  or less [PM<sub>2.5</sub>]). 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 PM<sub>10</sub> concentrations were collected at each of the four monitoring locations throughout this reporting period. Monitoring was conducted 24 hours a day at each station except for instances of equipment faults and project demobilization, as described below:

- Because of an equipment fault, the air monitoring period was interrupted at Maria Lanakila Catholic Church (AM-09) for four hours on February 17, resulting in the collection of 20 hours of PM<sub>10</sub> data.
- Because of project demobilization, the air monitoring period was interrupted at all monitoring stations on February 19 as described below:
  - WW Pump Station #4 (AM-02) collected 11 hours of PM<sub>10</sub> data prior to demobilization
  - Opukea Townhomes (AM-05) collected 14 hours of PM<sub>10</sub> data prior to demobilization
  - Lahaina Pump Station #6 (AM-08) collected 13 hours of PM<sub>10</sub> data prior to demobilization
  - Maria Lanakila Catholic Church (AM-09) collected 12 hours of PM<sub>10</sub> data prior to demobilization

None of the PM<sub>10</sub> monitoring results exceeded the 150 µg/m<sup>3</sup> 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**). The laboratory included the comment "Numerous gypsum fibers present" for all samples collected except for the following monitoring stations:

- Opukea Townhomes (AM-05) on February 19
- Lahaina Pump Station #6 (AM-08) on February 19

Gypsum is a common material used in drywall, plaster, and cement, so its presence in the sample filters likely resulted from debris removal operations or other disturbances of built-environment fire debris. The presence of gypsum fibers in the samples was not sufficient to obscure asbestos analyses; nor did this pose a health and safety concern. Occupational health exposure thresholds for gypsum are 5 milligrams per cubic meter (mg/m<sup>3</sup>) for respirable dust, and 10 mg/m<sup>3</sup> and 15 mg/m<sup>3</sup> for total dust (both as time-weighted averages), specified by the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA). While total dust sampling was not performed, results of size-discriminated particulate sampling (PM<sub>10</sub>) at these locations did not approach these thresholds and are orders of magnitude less than occupational gypsum exposure criteria.

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 1.2 miles per hour and were generally from a south-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 PM<sub>10</sub> 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**



- Lahaina Fire Perimeter
- Air Sampling Locations

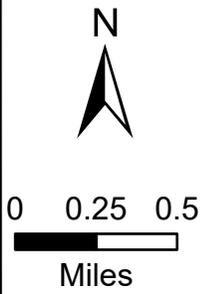


Figure 1  
Air Sampling Locations

Hawaii DOH  
2023 Lahaina Wildfire

**Table 1**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Particulate Monitoring Results for PM<sub>10</sub>**  
**Maui Wildfires, Lahaina**  
**February 13 through February 19, 2025**

Screening Level		TWA Results 150 (µg/m <sup>3</sup> )
2/13/2025	Opukea Townhomes (AM-05)	13
	WW Pump Station #4 (AM-02)	9.6
	Maria Lanakila Catholic Church (AM-09)	16
	Lahaina Pump Station #6 (AM-08)	11
2/14/2025	Opukea Townhomes (AM-05)	10
	WW Pump Station #4 (AM-02)	6.8
	Maria Lanakila Catholic Church (AM-09)	15
	Lahaina Pump Station #6 (AM-08)	7.9
2/15/2025	Opukea Townhomes (AM-05)	13
	WW Pump Station #4 (AM-02)	8.3
	Maria Lanakila Catholic Church (AM-09)	8.7
	Lahaina Pump Station #6 (AM-08)	8.3
2/16/2025	Opukea Townhomes (AM-05)	11
	WW Pump Station #4 (AM-02)	7.7
	Maria Lanakila Catholic Church (AM-09)	12
	Lahaina Pump Station #6 (AM-08)	8.1
2/17/2025	Opukea Townhomes (AM-05)	15
	WW Pump Station #4 (AM-02)	12
	Maria Lanakila Catholic Church (AM-09)	17*
	Lahaina Pump Station #6 (AM-08)	21
2/18/2025	Opukea Townhomes (AM-05)	11
	WW Pump Station #4 (AM-02)	5.5
	Maria Lanakila Catholic Church (AM-09)	114
	Lahaina Pump Station #6 (AM-08)	103
2/19/2025	Opukea Townhomes (AM-05)	6.3**
	WW Pump Station #4 (AM-02)	4.9**
	Maria Lanakila Catholic Church (AM-09)	5.9**
	Lahaina Pump Station #6 (AM-08)	5.1**

**Notes:**

µg/m<sup>3</sup> = micrograms per cubic meter

TWA = 24-Hour Time-Weighted Average

TWA calculation results are shown in two significant figures

\* Data provided are from a reduced (20-hr) TWA calculation because of an equipment fault

\*\* Data provided are from a reduced TWA calculation (discussed in report) because of project demobilization

**Table 2**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Asbestos and Metals Sampling Results**  
**Maui Wildfires, Lahaina**  
**February 13 through February 19, 2025**

Analyte		Asbestos	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Molybdenum	Nickel	Selenium	Thallium	Vanadium	Zinc
Units*		s/cc	µg/m <sup>3</sup>															
Site Screening Action Level		0.003 <sup>1</sup>	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
2/13/2025	Opukea Townhomes (AM-05)	<0.0024	0.000170	0.000615	0.00875	0.0000330	0.0000407	0.00364	0.000955	0.0355	0.000950	0.0413	0.00165	0.00225	0.000335	0.00000404	0.00360	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000445	0.000310	0.00989	0.0000180	0.0000164	0.00232	0.000489	0.0575	0.000829	0.0170	0.00313	0.00162	0.000275	0.00000221	0.00207	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000183	0.000265	0.00472	0.0000112	0.0000182	ND	0.000281	0.0287	0.000703	0.0102	0.00132	0.00121	0.000287	0.00000228	0.00152	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000111	0.000270	0.00331	0.00000829	0.0000198	ND	0.000216	0.0407	0.000452	0.00799	0.00251	0.000928	0.000289	0.00000226	0.00122	ND
2/14/2025	Opukea Townhomes (AM-05)	<0.0024	0.0000840	0.000232	0.00368	0.00000666	0.0000853	ND	0.000168	0.0227	0.000756	0.00690	0.00108	0.000714	0.000646	0.00000598	0.000601	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000114	0.000209	0.00255	0.00000624	0.0000597	ND	0.000144	0.0614	0.000556	0.00585	0.00320	0.000611	0.000623	0.00000607	0.000548	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.0000605	0.000205	0.00222	0.00000529	0.0000576	ND	0.000134	0.0416	0.000528	0.00479	0.00195	ND	0.000605	0.00000544	0.000420	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000157	0.000271	0.00287	0.00000682	0.0000601	ND	0.000210	0.0382	0.000499	0.00769	0.00204	0.000715	0.000589	0.00000543	0.000630	ND
2/15/2025	Opukea Townhomes (AM-05)	<0.0024	0.000139	0.000205	0.00433	0.00000823	0.0000522	ND	0.000244	0.0250	0.000498	0.00891	0.00133	0.000978	0.000456	0.00000690	0.00123	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000289	0.000247	0.00655	0.0000114	0.0000762	ND	0.000324	0.0643	0.000742	0.0110	0.00334	0.00117	0.000510	0.00000698	0.00158	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000111	0.000252	0.00337	0.00000567	0.0000486	ND	0.000153	0.0339	0.000442	0.00541	0.00135	0.000966	0.000468	0.00000679	0.000931	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000171	0.000306	0.00330	0.00000870	0.0000553	ND	0.000292	0.0494	0.000490	0.0111	0.00238	0.00101	0.000462	0.00000706	0.00141	ND
2/16/2025	Opukea Townhomes (AM-05)	<0.0024	0.000142	0.000153	0.00320	0.00000610	0.0000237	ND	0.000165	0.0318	0.000480	0.00644	0.00173	0.000738	0.000231	0.00000225	0.000905	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000262	0.000163	0.00459	0.00000661	0.0000579	0.00201	0.000183	0.0733	0.000564	0.00680	0.00355	0.00129	0.000248	0.00000230	0.00100	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000112	0.000298	0.00269	0.00000408	0.0000159	ND	0.000123	0.0453	0.000412	0.00443	0.00191	0.000776	0.000230	0.00000296	0.000736	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000123	0.000141	0.00225	0.00000353	0.0000156	ND	0.000103	0.0519	0.000263	0.00429	0.00209	ND	0.000217	0.00000197	0.000691	ND
2/17/2025	Opukea Townhomes (AM-05)	<0.0024	0.000113	0.000133	0.00272	0.00000500	0.0000221	ND	0.000143	0.0360	0.000348	0.00502	0.00139	0.000705	0.000160	0.00000191	0.000742	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000169	0.000102	0.00290	0.00000425	0.0000133	ND	0.000117	0.0729	0.000347	0.00444	0.00255	0.000617	0.000162	0.00000169	0.000703	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000107	0.000283	0.00287	0.00000379	0.0000235	ND	0.000126	0.0531	0.000753	0.00414	0.00182	0.00103	0.000228	0.00000229	0.000761	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000129	0.000132	0.00213	0.00000327	0.0000127	ND	0.0000925	0.0467	0.000262	0.00339	0.00215	ND	0.000200	0.00000229	0.000664	ND
2/18/2025	Opukea Townhomes (AM-05)	<0.0024	0.000183	0.000154	0.00419	0.00000461	0.0000601	ND	0.000169	0.0334	0.000404	0.00575	0.00164	0.000956	0.000275	0.00000457	0.000888	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000202	0.000196	0.00400	0.00000486	0.0000316	ND	0.000162	0.0921	0.000356	0.00533	0.00386	0.000849	0.000285	0.00000437	0.000928	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.000116	0.000437	0.00392	0.00000665	0.0000328	ND	0.000219	0.0650	0.000773	0.00750	0.00226	0.000991	0.000288	0.00000435	0.00104	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000133	0.000232	0.00208	0.00000277	0.0000753	ND	0.0000865	0.0488	0.000397	0.00307	0.00193	0.000669	0.000265	0.00000363	0.000697	ND
2/19/2025	Opukea Townhomes (AM-05)	<0.0024	0.000132	0.000186	0.00417	0.00000951	0.000113	ND	0.000307	0.0332	0.000330	0.0108	0.00165	0.000950	0.000217	0.00000122	0.00133	ND
	WW Pump Station #4 (AM-02)	<0.0024	0.000271	0.000156	0.00505	0.00000737	0.0000158	ND	0.000239	0.0775	0.000424	0.00755	0.00386	0.000901	0.000204	0.00000110	0.00113	ND
	Maria Lanakila Catholic Church (AM-09)	<0.0024	0.0000897	0.000148	0.00332	0.00000426	0.0000529	ND	0.000133	0.0362	0.000357	0.00461	0.00138	0.000812	0.000190	0.000000833	0.000788	ND
	Lahaina Pump Station #6 (AM-08)	<0.0024	0.000131	0.000140	0.00221	0.00000378	0.00000877	ND	0.000119	0.0613	0.000206	0.00407	0.00212	0.000978	0.000165	0.000000835	0.000798	ND
95% Upper Confidence Limit <sup>2</sup>		NA	0.000180	0.000260	0.00440	0.00000900	0.0000570	NA	0.000260	0.0551	0.000580	0.00949	0.00247	0.00109	0.000380	0.00000470	0.00123	NA

**Notes:**

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

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

s/cc = structures per cubic centimeter

µg/m<sup>3</sup> = 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

**Table 3**  
**State of Hawaii, Department of Health, Clean Air Branch**  
**Averaged Meteorological Data**  
**Maui Wildfires, Lahaina**  
**February 13 through February 19, 2025**

Date	Station ID	Weather Station Name	Wind Speed (mph)	Wind Direction (angle)	Temperature (°F)	Rel Humidity (%)	Baro Pressure (mBar)
2/13/2025	AM-02	WW Pump Station #4	1.1	SSE	76	71	761.3
2/13/2025	AM-09	Maria Lanakila Catholic Church	1.0	SSE	76	71	760.9
2/13/2025	AM-05	Opukea Townhomes	1.4	SE	77	71	760.8
2/13/2025	AM-08	Lahaina Pump Station #6	1.7	SE	77	71	761.1
2/14/2025	AM-02	WW Pump Station #4	1.3	SSE	77	69	763.5
2/14/2025	AM-09	Maria Lanakila Catholic Church	1.0	SSW	76	70	763.2
2/14/2025	AM-05	Opukea Townhomes	1.5	S	78	70	763.1
2/14/2025	AM-08	Lahaina Pump Station #6	1.8	SSE	78	68	763.4
2/15/2025	AM-02	WW Pump Station #4	1.0	SE	76	67	764.4
2/15/2025	AM-09	Maria Lanakila Catholic Church	1.1	SSE	76	66	764.1
2/15/2025	AM-05	Opukea Townhomes	1.3	SE	78	65	763.9
2/15/2025	AM-08	Lahaina Pump Station #6	1.7	SE	77	68	764.3
2/16/2025	AM-02	WW Pump Station #4	0.8	S	77	74	763.3
2/16/2025	AM-09	Maria Lanakila Catholic Church	1.1	S	76	74	762.9
2/16/2025	AM-05	Opukea Townhomes	0.9	ESE	79	73	762.7
2/16/2025	AM-08	Lahaina Pump Station #6	1.3	S	78	72	763.2
2/17/2025	AM-02	WW Pump Station #4	1.0	SSE	76	78	762.4
2/17/2025	AM-09	Maria Lanakila Catholic Church	1.0	SSE	75	80	762.0
2/17/2025	AM-05	Opukea Townhomes	1.2	SSE	78	78	761.9
2/17/2025	AM-08	Lahaina Pump Station #6	1.7	SSE	77	76	762.3
2/18/2025	AM-02	WW Pump Station #4	0.8	S	77	71	762.6
2/18/2025	AM-09	Maria Lanakila Catholic Church	1.2	SSE	77	72	762.3
2/18/2025	AM-05	Opukea Townhomes	1.0	ESE	79	71	762.1
2/18/2025	AM-08	Lahaina Pump Station #6	1.4	SSE	78	70	762.6
2/19/2025	AM-02	WW Pump Station #4	0.9	ESE	74	76	763.8
2/19/2025	AM-09	Maria Lanakila Catholic Church	0.9	SE	74	77	763.4
2/19/2025	AM-05	Opukea Townhomes	1.1	S	77	73	763.0
2/19/2025	AM-08	Lahaina Pump Station #6	1.6	SE	76	74	763.7

**Notes:**

°F - Fahrenheit

mBar - millibar

mph - miles per hour

# Appendix 1

Please note, comments pertaining to gypsum may be mentioned in the lab reports below. Gypsum is a common ingredient in drywall, plaster and cement so its presence in the sample filters is likely due to debris removal operations or other disturbances of built-environment fire debris. A more indepth discussion can be found in the attached weekly report.



**EMSL Analytical, Inc.**  
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 Tel/Fax: (800) 220-3675 / (856) 786-5974  
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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0682924</b>
EMSL Sample Number:	042503303-0001	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7170.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present

Approved Signatory

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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042503303**  
**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: 042503303-0001			Customer Sample: MFL-AM05-021325-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					
A5	B3	None Detected									
A5	G7	None Detected									
A5	J9	None Detected									
A6	C7	None Detected									
A6	I6	None Detected									

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



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0683154</b>
EMSL Sample Number:	042503303-0002	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7219.3
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsu, fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0002</b>			Customer Sample: <b>MFL-AM02-021325-AB</b>								
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					
B1	D4	None Detected									
B1	H3	None Detected									
B4	B2	None Detected									
B4	D5	None Detected									
B4	I7	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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 Tetra Tech  
 1560 Broadway, Suite 1400  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0682884</b>
EMSL Sample Number:	042503303-0003	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7165.2
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

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

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042503303-0003</b>			<b>Customer Sample: MFL-AM09-021325-AB</b>								
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	J5	None Detected									
B5	G4	None Detected									
B5	C7	None Detected									
B6	D6	None Detected									
B6	H7	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
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**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0683774</b>
EMSL Sample Number:	042503303-0004	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7251.2
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**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: 042503303-0004			Customer Sample: MFL-AM08-021325-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	I8	None Detected									
C1	E7	None Detected									
C2	J6	None Detected									
C2	F9	None Detected									
C2	B7	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-FB01-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0683541</b>
EMSL Sample Number:	042503303-0005	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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

EMSL Order ID: 042503303

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: 042503303-0005		Customer Sample: MFL-FB01-021325-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	A3	None Detected									
C5	E8	None Detected									
C5	G4	None Detected									
C5	I7	None Detected									
C6	B5	None Detected									
C6	F8	None Detected									
C6	J6	None Detected									
C7	H3	None Detected									
C7	H7	None Detected									
C7	C9	None Detected									

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



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021425-AB</b>	<b>Sample Description:</b>	<b>TEM0683739</b>
EMSL Sample Number:	042503303-0006	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7282.5
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	7		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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:		042503303-0006		Customer Sample:		MFL-AM05-021425-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	A4	None Detected									
D1	E2	None Detected									
D1	J5	None Detected									
D4	B5	None Detected									
D2	G7	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	MFL-AM02-021425-AB	<b>Sample Description:</b>	TEM0683575
EMSL Sample Number:	042503303-0007	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7256.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		

Estimated Particulate Loading on Filter %: 6  
 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 <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	-	0	0	< 46.36	< 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 <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0007</b>			Customer Sample: <b>MFL-AM02-021425-AB</b>								
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	I7	None Detected									
D5	F4	None Detected									
D5	C7	None Detected									
D6	D5	None Detected									
D6	H2	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021425-AB</b>	<b>Sample Description:</b>	<b>TEM0683637</b>
EMSL Sample Number:	042503303-0008	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7204.6
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

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

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042503303-0008</b>			<b>Customer Sample: MFL-AM09-021425-AB</b>								
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					
E3	C3	None Detected									
E3	F8	None Detected									
E3	J5	None Detected									
E4	G6	None Detected									
E4	D3	None Detected									

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



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**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021425-AB</b>	<b>Sample Description:</b>	<b>TEM0683785</b>
EMSL Sample Number:	042503303-0009	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7295.2
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

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.**  
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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042503303**  
**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: 042503303-0009			Customer Sample: MFL-AM08-021425-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					
E6	B6	None Detected									
E6	E4	None Detected									
E6	H7	None Detected									
E8	G9	None Detected									
E8	C5	None Detected									

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



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-FB01-021425-AB</b>	<b>Sample Description:</b>	<b>TEM0683953</b>
EMSL Sample Number:	042503303-0010	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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

EMSL Order ID: 042503303

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:		042503303-0010		Customer Sample:		MFL-FB01-021425-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	A4	None Detected									
F1	D9	None Detected									
F1	F4	None Detected									
F1	J2	None Detected									
F2	I7	None Detected									
F2	E5	None Detected									
F2	C8	None Detected									
F3	B6	None Detected									
F3	F3	None Detected									
F3	I6	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021525-AB</b>	<b>Sample Description:</b>	<b>TEM0683769</b>
EMSL Sample Number:	042503303-0011	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7101.7
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	10		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0011</b>			Customer Sample: <b>MFL-AM05-021525-AB</b>								
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	F3	None Detected									
F5	B6	None Detected									
F7	D3	None Detected									
F7	H3	None Detected									

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



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021525-AB</b>	<b>Sample Description:</b>	<b>TEM0683727</b>
EMSL Sample Number:	042503303-0012	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7184.5
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**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: 042503303-0012			Customer Sample: MFL-AM02-021525-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	B7	None Detected									
G1	C6	None Detected									
G2	J5	None Detected									
G2	I2	None Detected									
G3	H4	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021525-AB</b>	<b>Sample Description:</b>	<b>TEM0683747</b>
EMSL Sample Number:	042503303-0013	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7149.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0013</b>			Customer Sample: <b>MFL-AM09-021525-AB</b>								
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	A9	None Detected									
G5	C10	None Detected									
G6	J6	None Detected									
G6	H5	None Detected									
G7	D7	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021525-AB</b>	<b>Sample Description:</b>	<b>TEM0683691</b>
EMSL Sample Number:	042503303-0014	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7189.6
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**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: 042503303-0014			Customer Sample: MFL-AM08-021525-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	C6	None Detected									
H1	D7	None Detected									
H2	A5	None Detected									
H2	B4	None Detected									
H3	E9	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Phone:** (703) 489-2674  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-FB01-021525-AB</b>	<b>Sample Description:</b>	<b>TEM0683662</b>
EMSL Sample Number:	042503303-0015	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	1		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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**EMSL Order ID: 042503303**  
**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: 042503303-0015		Customer Sample: MFL-FB01-021525-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	F8	None Detected									
H5	F10	None Detected									
H5	G7	None Detected									
H5	G9	None Detected									
H6	I4	None Detected									
H6	I6	None Detected									
H6	J5	None Detected									
H7	C7	None Detected									
H7	C5	None Detected									
H7	B6	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021625-AB</b>	<b>Sample Description:</b>	<b>TEM0683843</b>
EMSL Sample Number:	042503303-0016	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7241.9
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order ID: **042503303**  
 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:		042503303-0016					Customer Sample:		MFL-AM05-021625-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	J7	None Detected									
I1	H6	None Detected									
I2	I4	None Detected									
I2	G8	None Detected									
I3	A5	None Detected									

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



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021625-AB</b>	<b>Sample Description:</b>	<b>TEM0683867</b>
EMSL Sample Number:	042503303-0017	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7207.6
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503303**  
**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: 042503303-0017			Customer Sample: MFL-AM02-021625-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					
15	J8	None Detected									
15	H7	None Detected									
16	A3	None Detected									
16	B2	None Detected									
17	C4	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021625-AB</b>	<b>Sample Description:</b>	<b>TEM0683680</b>
EMSL Sample Number:	042503303-0018	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7246.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0018</b>			Customer Sample: <b>MFL-AM09-021625-AB</b>								
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	I5	None Detected									
J1	H6	None Detected									
J2	F8	None Detected									
J2	E7	None Detected									
J3	D3	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021625-AB</b>	<b>Sample Description:</b>	<b>TEM0683612</b>
EMSL Sample Number:	042503303-0019	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7350.8
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	4		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503303**  
 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: <b>042503303-0019</b>			Customer Sample: <b>MFL-AM08-021625-AB</b>								
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	H10	None Detected									
J5	G9	None Detected									
J6	J5	None Detected									
J6	I4	None Detected									
J7	C4	None Detected									

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



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**EMSL Order:** 042503303  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-FB01-021625-AB</b>	<b>Sample Description:</b>	<b>TEM0683863</b>
EMSL Sample Number:	042503303-0020	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	1		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**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](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042503303**  
**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: 042503303-0020		Customer Sample: MFL-FB01-021625-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	J9	None Detected									
K1	J7	None Detected									
K1	H8	None Detected									
K1	H6	None Detected									
K2	I5	None Detected									
K2	I3	None Detected									
K2	G4	None Detected									
K3	F4	None Detected									
K3	F2	None Detected									
K3	E3	None Detected									

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



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-LB01-021325-AB</b>	<b>Sample Description:</b>	<b>TEM0683547</b>
EMSL Sample Number:	042503303-0021	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	S. Richey
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	1		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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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: 042503303

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:		042503303-0021		Customer Sample:		MFL-LB01-021325-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	A3	None Detected									
K5	A5	None Detected									
K5	B4	None Detected									
K5	B6	None Detected									
K6	C5	None Detected									
K6	C7	None Detected									
K6	D4	None Detected									
K7	H7	None Detected									
K7	H9	None Detected									
K7	I8	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042503303  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/26/2025  
**Report Date:** 02/28/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>Lab Blank</b>	<b>Sample Description: Lab Blank</b>
EMSL Sample Number:	042503303-0022	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 <sup>2</sup> ): 385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ): 0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed: 10
Minimum Level of analysis (chrysotile):	CD	Analyst: G.Barry
Minimum Level of analysis (amphibole):	ADX	
Estimated Particulate Loading on Filter %:	3	
Target Analytical Sensitivity (Structures/cc):	0.001	
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc): N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

  
 Approved Signatory

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

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

EMSL Order ID: 042503303

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:		042503303-0022		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	J4	None Detected									
A1	G7	None Detected									
A1	E3	None Detected									
A1	A6	None Detected									
A2	B3	None Detected									
A2	F3	None Detected									
A2	I3	None Detected									
A3	C4	None Detected									
A3	F6	None Detected									
A3	J5	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

## #042503303

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

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

RECEIVED  
EMSL  
CINNAMINSON, NJ  
2025 FEB 24 11 A  
2021

Project Name/No: <b>Maui Fires Lahaina</b>		Purchase Order: <b>1207085</b>
EMSL LIMS Project ID: (If applicable, EMSL will provide)	US State where samples collected: <b>HI</b>	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input checked="" type="checkbox"/> Residential (Non-Taxable)
Sampled By Name: <b>Itai Bojdak-Yater</b>	Sampled By Signature: <i>[Signature]</i>	No. of Samples In Shipment: <b>20</b>

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.

<p><b>PCM Air</b></p> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> NIOSH 7400 w/ 8hr. TWA <p><b>PLM - Bulk (reporting limit)</b></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><b>TEM - Air</b></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><b>TEM - Bulk</b></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><b>TEM - Settled Dust</b></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><b>Soil - Rock - Vermiculite (reporting limit)*</b></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-AM05-021325-AB	TEM0682924	7170.026	02/13/25 1051
MFL-AM02-021325-AB	TEM0683154	7219.308	02/13/25 1105
MFL-AM09-021325-AB	TEM0682884	7165.209	02/13/25 1250
MFL-AM08-021325-AB	TEM0683774	7251.246	02/13/25 1307
MFL-AB01-021325-AB	TEM0683541	0	02/13/25 1200
MFL-AM05-021425-AB	TEM0683739	7282.512	02/14/25 1054
MFL-AM02-021425-AB	TEM0683575	7256.448	02/14/25 1108
MFL-AM09-021425-AB	TEM0683637	7204.608	02/14/25 1253

All samples received acceptable for analysis.

Method of Shipment: <b>Fedex</b>	Sample Condition Upon Receipt:
Relinquished by: <b>Itai Bojdak-Yater</b> Date/Time: <b>02/17/25 1100</b>	Received by: <i>[Signature]</i> , <b>Fedex</b> Date/Time: <b>2/24/25 9:05A</b>
Relinquished by:	Received by:

Controlled Document - COC-05 Asbestos R16 10292921  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 03/03/2025 and Shanna Vasser 03/06/2025

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

Collection date(s): 02/13/2025 – 02/16/2025

Report No: 42503303

- √ 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.



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042503307  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021725-AB</b>	<b>Sample Description:</b>	<b>TEM0683638</b>
EMSL Sample Number:	042503307-0001	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7225.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

**EMSL Order ID: 042503307**  
**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: 042503307-0001			Customer Sample: MFL-AM05-021725-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					
A5	I8	None Detected									
A5	F4	None Detected									
A5	A5	None Detected									
A6	C4	None Detected									
A6	G6	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
 1560 Broadway, Suite 1400  
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**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021725-AB</b>	<b>Sample Description:</b>	<b>TEM0683711</b>
EMSL Sample Number:	042503307-0002	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7228.7
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503307**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

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

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042503307-0002</b>			<b>Customer Sample: MFL-AM02-021725-AB</b>								
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					
B1	B6	None Detected									
B1	E3	None Detected									
B1	G6	None Detected									
B2	A8	None Detected									
B2	H5	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021725-AB</b>	<b>Sample Description:</b>	<b>TEM0683642</b>
EMSL Sample Number:	042503307-0003	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7232.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503307**  
**Client: Tetra Tech**  
**Project ID: Maui Fires Lahaina**

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

**Analytical Bench Sheet Data**

<b>EMSL Sample ID: 042503307-0003</b>			<b>Customer Sample: MFL-AM09-021725-AB</b>								
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	E7	None Detected									
B5	I4	None Detected									
B6	G7	None Detected									
B6	D5	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Phone:** (703) 489-2674  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021725-AB</b>	<b>Sample Description:</b>	<b>TEM0683716</b>
EMSL Sample Number:	042503307-0004	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7317.4
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503307**  
 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: <b>042503307-0004</b>			Customer Sample: <b>MFL-AM08-021725-AB</b>								
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	B3	None Detected									
C1	F4	None Detected									
C1	H7	None Detected									
C2	D5	None Detected									
C2	I8	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Phone:** (703) 489-2674  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	MFL-FB01-021725-AB	<b>Sample Description:</b>	TEM0683695
EMSL Sample Number:	042503307-0005	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 23.18			
<b>Total Amphibole</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	-	0	0	< 23.18			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 23.18			
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	-	0	0	< 23.18			

**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.

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

EMSL Order ID: 042503307

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:		042503307-0005		Customer Sample:		MFL-FB01-021725-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	B6	None Detected									
C5	E3	None Detected									
C5	G6	None Detected									
C5	J9	None Detected									
C6	A5	None Detected									
C6	D7	None Detected									
C6	H4	None Detected									
C7	J8	None Detected									
C7	F4	None Detected									
C7	B7	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
 Tetra Tech  
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**Phone:** (703) 489-2674  
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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021825-AB</b>	<b>Sample Description:</b>	<b>TEM0683634</b>
EMSL Sample Number:	042503307-0006	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7196.2
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	7		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503307**  
**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: 042503307-0006			Customer Sample: MFL-AM05-021825-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	I7	None Detected									
D1	E4	None Detected									
D1	A6	None Detected									
D2	D3	None Detected									
D2	H5	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Analysis Date:** 02/27/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021825-AB</b>	<b>Sample Description:</b>	<b>TEM0683614</b>
EMSL Sample Number:	042503307-0007	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7212.3
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: 042503307

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: 042503307-0007			Customer Sample: MFL-AM02-021825-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	I5	None Detected									
D5	E3	None Detected									
D5	C6	None Detected									
D6	G8	None Detected									
D6	D3	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021825-AB</b>	<b>Sample Description:</b>	<b>TEM0683766</b>
EMSL Sample Number:	042503307-0008	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7172.1
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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**EMSL Order ID: 042503307**  
**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: 042503307-0008			Customer Sample: MFL-AM09-021825-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					
E2	J8	None Detected									
E2	F4	None Detected									
E2	A7	None Detected									
E3	H9	None Detected									
E3	D6	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021825-AB</b>	<b>Sample Description:</b>	<b>TEM0683878</b>
EMSL Sample Number:	042503307-0009	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7110.0
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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

EMSL Order ID: 042503307

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: 042503307-0009			Customer Sample: MFL-AM08-021825-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	B7	None Detected									
E5	D3	None Detected									
E6	C4	None Detected									
E6	F2	None Detected									
E6	I5	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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

**Phone:** (703) 489-2674  
**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	MFL-FB01-021825-AB	<b>Sample Description:</b>	TEM0683762
EMSL Sample Number:	042503307-0010	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	CD	0	0	< 23.18			
<b>Total Amphibole</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	-	0	0	< 23.18			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	CD	0	0	< 23.18			
<b>Total Amphibole (PCMe)</b>	ADX	0	0	< 23.18			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	CD/ADX	0	0	< 23.18			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	-	0	0	< 23.18			

**Comment**

  
 Approved Signatory

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**EMSL Order ID: 042503307**  
**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: 042503307-0010		Customer Sample: MFL-FB01-021825-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	A3	None Detected									
F1	E2	None Detected									
F1	H8	None Detected									
F1	J4	None Detected									
F2	I7	None Detected									
F2	G4	None Detected									
F2	D7	None Detected									
F3	B6	None Detected									
F3	E3	None Detected									
F3	H7	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
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**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM05-021925-AB</b>	<b>Sample Description:</b>	<b>TEM0683633</b>
EMSL Sample Number:	042503307-0011	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7203.7
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**

Approved Signatory

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EMSL Order ID: 042503307

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: 042503307-0011		Customer Sample: MFL-AM05-021925-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	I6	None Detected									
F5	F8	None Detected									
F5	B4	None Detected									
F6	D3	None Detected									
F6	G4	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

**Attn: Chelsea Saber**  
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**Fax:** N/A  
**Received Date:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM02-021925-AB</b>	<b>Sample Description:</b>	<b>TEM0683550</b>
EMSL Sample Number:	042503307-0012	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7241.7
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	5		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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EMSL Order ID: **042503307**  
 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: <b>042503307-0012</b>			Customer Sample: <b>MFL-AM02-021925-AB</b>								
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					
G3	C5	None Detected									
G3	F7	None Detected									
G4	A6	None Detected									
G4	E3	None Detected									
G4	I6	None Detected									

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



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**EMSL Order:** 042503307  
**Customer ID:** TTDC42  
**Customer PO:** 1207085  
**Project ID:** N/A

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**Fax:** N/A  
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**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM09-021925-AB</b>	<b>Sample Description:</b>	<b>TEM0683683</b>
EMSL Sample Number:	042503307-0013	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7177.1
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**  
 Numerous gypsum fibers present.

Approved Signatory

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 Tel/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

**EMSL Order ID: 042503307**  
**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: 042503307-0013			Customer Sample: MFL-AM09-021925-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	D7	None Detected									
G5	G2	None Detected									
G5	I7	None Detected									
G6	J6	None Detected									
G6	E8	None Detected									

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



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042503307  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-AM08-021925-AB</b>	<b>Sample Description:</b>	<b>TEM0683818</b>
EMSL Sample Number:	042503307-0014	Sample Matrix:	Air
Magnification used for fiber counting:	20,000	Volume (L):	7320.8
Aspect ratio for fiber definition:	3:1	Area of original collection filter (mm <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	6		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>0.0008</b>	<b>Limit of Detection (Structures/cc):</b>	<b>0.0024</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Actinolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Amosite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Anthophyllite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Crocidolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
Tremolite	ADX	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	
Other Minerals	-	0	0	< 46.36	< 0.0024	Not Applicable - 0.0024	
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 46.36</b>	<b>&lt; 0.0024</b>	<b>Not Applicable - 0.0024</b>	

**Comment**

Approved Signatory

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

EMSL Order ID: 042503307

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: 042503307-0014			Customer Sample: MFL-AM08-021925-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	A3	None Detected									
H1	E7	None Detected									
H1	I5	None Detected									
H2	B6	None Detected									
H2	G6	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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<http://www.EMSL.com> / [cinnaaslab@EMSL.com](mailto:cinnaaslab@EMSL.com)

**EMSL Order:** 042503307  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/28/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>MFL-FB01-021925-AB</b>	<b>Sample Description:</b>	<b>TEM0683744</b>
EMSL Sample Number:	042503307-0015	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 <sup>2</sup> ):	385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ):	0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD	Analyst:	G.Barry
Minimum Level of analysis (amphibole):	ADX		
Estimated Particulate Loading on Filter %:	2		
Target Analytical Sensitivity (Structures/cc):	0.001		
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc):</b>	<b>N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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

EMSL Order ID: 042503307

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: 042503307-0015		Customer Sample: MFL-FB01-021925-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					
H6	A5	None Detected									
H6	D3	None Detected									
H6	G6	None Detected									
H6	J3	None Detected									
H7	J8	None Detected									
H7	F4	None Detected									
H7	A7	None Detected									
H8	I9	None Detected									
H8	E5	None Detected									
H8	B8	None Detected									

Abbreviations used:

XNCGBLD - Crosses Non-Countable Grid Bar Length Doubled

XCGBLD - Crosses Countable Grid Bar Length Doubled



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**EMSL Order:** 042503307  
**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:** 02/24/2025 09:05 AM  
**Analysis Date:** 02/24/2025  
**Report Date:** 03/03/2025

**Project: Maui Fires Lahaina**

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

<b>Customer Sample Number:</b>	<b>Lab Blank</b>	<b>Sample Description: Lab Blank</b>
EMSL Sample Number:	042503307-0016	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 (mm <sup>2</sup> ): 385
Minimum Length (µm):	≥ 0.5	Grid Opening Area (mm <sup>2</sup> ): 0.0129
Chi <sup>2</sup> Test for Random Distribution on Filter:	N/A (N/A)	Grid Openings Analyzed: 10
Minimum Level of analysis (chrysotile):	CD	Analyst: G.Barry
Minimum Level of analysis (amphibole):	ADX	
Estimated Particulate Loading on Filter %:	2	
Target Analytical Sensitivity (Structures/cc):	0.001	
<b>Analytical Sensitivity (Structures/cc):</b>	<b>N/A</b>	<b>Limit of Detection (Structures/cc): N/A</b>

TOTAL STRUCTURES (All Sizes)							
	Minimum ID Level	Structures Detected		Density (S/mm <sup>2</sup> )	Concentration (S/cc)	95 % Confidence Interval (S/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

PCM EQUIVALENT (PCMe) Fibers (>5 microns in length with >3:1 Aspect Ratio)							
	Minimum ID Level	Fibers Detected		Density (F/mm <sup>2</sup> )	Concentration (F/cc)	95 % Confidence Interval (F/cc)	
		Primary	Total			Lower	Upper
<b>Total Chrysotile (PCMe)</b>	<b>CD</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
<b>Total Amphibole (PCMe)</b>	<b>ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Actinolite	ADX	0	0	< 23.18			
Amosite	ADX	0	0	< 23.18			
Anthophyllite	ADX	0	0	< 23.18			
Crocidolite	ADX	0	0	< 23.18			
Tremolite	ADX	0	0	< 23.18			
<b>Total Asbestos Structures (PCMe)</b>	<b>CD/ADX</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			
Other Minerals	-	0	0	< 23.18			
<b>Total All Structures (PCMe)</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>&lt; 23.18</b>			

**Comment**

Approved Signatory

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<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order ID: **042503307**  
 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:		042503307-0016		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	A8	None Detected									
A1	D6	None Detected									
A2	I9	None Detected									
A2	G4	None Detected									
A2	E9	None Detected									
A2	B7	None Detected									
A3	H8	None Detected									
A3	F6	None Detected									
A3	D10	None Detected									
A3	A7	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

## #042503307

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

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

RECEIVED  
EMSL  
CINNAMINSON, NJ  
25 FEB 24 AM 10:00

Project Name/No: <b>Maui Fires Lahaina</b>		Purchase Order: <b>1207085</b>
EMSL LIMS Project ID: (If applicable, EMSL will provide)	US State where samples collected: <b>HI</b>	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)
Sampled By Name: <b>Itai Bojdak-Yates</b>	Sampled By Signature:	No. of Samples In Shipment: <b>15</b>

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**

**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 783  
 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-AM05-021725-AB	TEM0683638	7225.405	02/17/25 1053
MFL-AM02-021725-AB	TEM0683711	7228.736	02/17/25 1108
MFL-AM09-021725-AB	TEM0683642	7232.400	02/17/25 1254
MFL-AM08-021725-AB	TEM0683716	7317.429	02/17/25 1310
MFL-F001-021725-AB	TEM0683695	0	02/17/25 1200
MFL-AM05-021825-AB	TEM0683634	7196.227	02/18/25 1053
MFL-AM02-021825-AB	TEM0683614	7212.310	02/18/25 1107
MFL-AM09-021825-AB	TEM0683766	7172.130	02/18/25 1245

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

All samples received acceptable for analysis.

(15) 88

Method of Shipment: <b>Fedex</b>	Sample Condition Upon Receipt:
Relinquished by: <b>Itai Bojdak-Yates</b> Date/Time: <b>02/20/25 1100</b>	Received by:  Date/Time: <b>2/24/25 9:05 A</b>
Relinquished by:	Received by:

Controlled Document - COC-05 Asbestos R16 10/26/2021

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 03/03/2025 and Shanna Vasser 03/06/2025

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

Collection date(s): 02/17/2025 – 02/19/2025

Report No: 42503307

- √ 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

March 04, 2025

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 02/24/25 11:05.

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](mailto: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](mailto: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:** 03/04/25 13:23

**SUBMITTED:** 02/24/25

**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-AM05-021325-HM	5022427-01	Air	02/13/25 23:59	02/24/25 11:05
MFL-AM02-021325-HM	5022427-02	Air	02/13/25 23:59	02/24/25 11:05
MFL-AM09-021325-HM	5022427-03	Air	02/13/25 23:59	02/24/25 11:05
MFL-AM08-021325-HM	5022427-04	Air	02/13/25 23:59	02/24/25 11:05
MFL-FB01-021325-HM	5022427-05	Air	02/13/25 00:00	02/24/25 11:05
MFL-AM05-021425-HM	5022427-06	Air	02/14/25 23:59	02/24/25 11:05
MFL-AM02-021425-HM	5022427-07	Air	02/14/25 23:59	02/24/25 11:05
MFL-AM09-021425-HM	5022427-08	Air	02/14/25 23:59	02/24/25 11:05
MFL-AM08-021425-HM	5022427-09	Air	02/14/25 23:59	02/24/25 11:05
MFL-AM05-021525-HM	5022427-10	Air	02/15/25 23:59	02/24/25 11:05
MFL-AM02-021525-HM	5022427-11	Air	02/15/25 23:59	02/24/25 11:05
MFL-AM09-021525-HM	5022427-12	Air	02/15/25 23:59	02/24/25 11:05
MFL-AM08-021525-HM	5022427-13	Air	02/15/25 23:59	02/24/25 11:05
MFL-FB01-021525-HM	5022427-14	Air	02/15/25 00:00	02/24/25 11:05
MFL-AM05-021625-HM	5022427-15	Air	02/16/25 23:59	02/24/25 11:05
MFL-AM02-021625-HM	5022427-16	Air	02/16/25 23:59	02/24/25 11:05
MFL-AM09-021625-HM	5022427-17	Air	02/16/25 23:59	02/24/25 11:05
MFL-AM08-021625-HM	5022427-18	Air	02/16/25 23:59	02/24/25 11:05
MFL-AM05-021725-HM	5022427-19	Air	02/17/25 23:59	02/24/25 11:05
MFL-AM02-021725-HM	5022427-20	Air	02/17/25 23:59	02/24/25 11:05
MFL-AM09-021725-HM	5022427-21	Air	02/17/25 23:59	02/24/25 11:05



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Blue Bell, PA 19422

**ATTN:** Ms. Chelsea Saber

**PHONE:** (703) 885-5495 **FAX:**

MFL-AM08-021725-HM	5022427-22	Air	02/17/25 23:59	02/24/25 11:05
MFL-FB01-021725-HM	5022427-23	Air	02/17/25 00:00	02/24/25 11:05
MFL-AM05-021825-HM	5022427-24	Air	02/18/25 23:59	02/24/25 11:05
MFL-AM02-021825-HM	5022427-25	Air	02/18/25 23:59	02/24/25 11:05
MFL-AM09-021825-HM	5022427-26	Air	02/18/25 23:59	02/24/25 11:05
MFL-AM08-021825-HM	5022427-27	Air	02/18/25 23:59	02/24/25 11:05
MFL-AM05-021925-HM	5022427-28	Air	02/19/25 23:59	02/24/25 11:05
MFL-AM02-021925-HM	5022427-29	Air	02/19/25 23:59	02/24/25 11:05
MFL-AM09-021925-HM	5022427-30	Air	02/19/25 23:59	02/24/25 11:05
MFL-AM08-021925-HM	5022427-31	Air	02/19/25 23:59	02/24/25 11:05
MFL-FB01-021925-HM	5022427-32	Air	02/19/25 00:00	02/24/25 11:05

**FILE #:** 4205.00.003.001

**REPORTED:** 03/04/25 13:23

**SUBMITTED:** 02/24/25

**AQS SITE CODE:**

**SITE CODE:** Lahaina fires



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-021325-HM      **Lab ID:** 5022427-01      **Sampled:** 02/13/25 23:59  
**Matrix:** Air      **Sample Volume:** 2134.137 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 03:12  
**Comments:** Q9524297 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.170	SL	0.0267
Arsenic	7440-38-2	0.615		0.00678
Barium	7440-39-3	8.75		1.17
Beryllium	7440-41-7	0.0330		0.00145
Cadmium	7440-43-9	0.0407		0.00390
Chromium	7440-47-3	3.64		1.86
Cobalt	7440-48-4	0.955		0.0396
Copper	7440-50-8	35.5		0.573
Lead	7439-92-1	0.950		0.102
Manganese	7439-96-5	41.3		0.425
Molybdenum	7439-98-7	1.65		0.300
Nickel	7440-02-0	2.25		0.563
Selenium	7782-49-2	0.335		0.00770
Thallium	7440-28-0	0.00404		6.56E-4
Vanadium	7440-62-2	3.60		0.0349
Zinc	7440-66-6	28.9	U	86.9



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-021325-HM      **Lab ID:** 5022427-02      **Sampled:** 02/13/25 23:59  
**Matrix:** Air      **Sample Volume:** 2121.758 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 03:31  
**Comments:** Q9524296 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.445	SL	0.0268	
Arsenic	7440-38-2	0.310		0.00682	
Barium	7440-39-3	9.89		1.18	
Beryllium	7440-41-7	0.0180		0.00146	
Cadmium	7440-43-9	0.0164		0.00393	
Chromium	7440-47-3	2.32		1.87	
Cobalt	7440-48-4	0.489		0.0399	
Copper	7440-50-8	57.5		0.577	
Lead	7439-92-1	0.829		0.103	
Manganese	7439-96-5	17.0		0.427	
Molybdenum	7439-98-7	3.13		0.302	
Nickel	7440-02-0	1.62		0.567	
Selenium	7782-49-2	0.275		0.00774	
Thallium	7440-28-0	0.00221		6.60E-4	
Vanadium	7440-62-2	2.07		0.0351	
Zinc	7440-66-6	27.0	U	87.4	



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-021325-HM      **Lab ID:** 5022427-03      **Sampled:** 02/13/25 23:59  
**Matrix:** Air      **Sample Volume:** 2041.531 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 04:02  
**Comments:** Q9524295 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.183	SL	0.0279	
Arsenic	7440-38-2	0.265		0.00708	
Barium	7440-39-3	4.72		1.23	
Beryllium	7440-41-7	0.0112		0.00151	
Cadmium	7440-43-9	0.0182		0.00408	
Chromium	7440-47-3	1.59	U	1.94	
Cobalt	7440-48-4	0.281		0.0414	
Copper	7440-50-8	28.7		0.599	
Lead	7439-92-1	0.703		0.107	
Manganese	7439-96-5	10.2		0.444	
Molybdenum	7439-98-7	1.32		0.314	
Nickel	7440-02-0	1.21		0.589	
Selenium	7782-49-2	0.287		0.00805	
Thallium	7440-28-0	0.00228		6.86E-4	
Vanadium	7440-62-2	1.52		0.0365	
Zinc	7440-66-6	15.2	U	90.9	



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-021325-HM      **Lab ID:** 5022427-04      **Sampled:** 02/13/25 23:59  
**Matrix:** Air      **Sample Volume:** 1815.71 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 04:17  
**Comments:** Q9524294 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.111	SL	0.0314	
Arsenic	7440-38-2	0.270		0.00797	
Barium	7440-39-3	3.31		1.38	
Beryllium	7440-41-7	0.00829		0.00170	
Cadmium	7440-43-9	0.0198		0.00459	
Chromium	7440-47-3	1.44	U	2.19	
Cobalt	7440-48-4	0.216		0.0466	
Copper	7440-50-8	40.7		0.674	
Lead	7439-92-1	0.452		0.120	
Manganese	7439-96-5	7.99		0.499	
Molybdenum	7439-98-7	2.51		0.353	
Nickel	7440-02-0	0.928		0.662	
Selenium	7782-49-2	0.289		0.00905	
Thallium	7440-28-0	0.00226		7.72E-4	
Vanadium	7440-62-2	1.22		0.0410	
Zinc	7440-66-6	11.3	U	102	



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-FB01-021325-HM      **Lab ID:** 5022427-05      **Sampled:** 02/13/25 00:00  
**Matrix:** Air      **Sample Volume:** 2134.137 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 04:31  
**Comments:** Q9524292 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0147	SL, U	0.0267	
Arsenic	7440-38-2	0.00593	U	0.00678	
Barium	7440-39-3	0.596	U	1.17	
Beryllium	7440-41-7	9.43E-5	U	0.00145	
Cadmium	7440-43-9	4.70E-4	U	0.00390	
Chromium	7440-47-3	0.616	U	1.86	
Cobalt	7440-48-4	0.00498	U	0.0396	
Copper	7440-50-8	0.198	U	0.573	
Lead	7439-92-1	0.0254	U	0.102	
Manganese	7439-96-5	0.179	U	0.425	
Molybdenum	7439-98-7	0.0769	U	0.300	
Nickel	7440-02-0	0.170	U	0.563	
Selenium	7782-49-2	0.00275	U	0.00770	
Thallium	7440-28-0	6.98E-5	U	6.56E-4	
Vanadium	7440-62-2	0.00633	U	0.0349	
Zinc	7440-66-6	5.21	U	86.9	



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM05-021425-HM      **Lab ID:** 5022427-06      **Sampled:** 02/14/25 23:59  
**Matrix:** Air      **Sample Volume:** 2125.762 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 04:44  
**Comments:** Q9524290 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0840	SL	0.0268	
Arsenic	7440-38-2	0.232		0.00680	
Barium	7440-39-3	3.68		1.18	
Beryllium	7440-41-7	0.00666		0.00145	
Cadmium	7440-43-9	0.0853		0.00392	
Chromium	7440-47-3	1.27	U	1.87	
Cobalt	7440-48-4	0.168		0.0398	
Copper	7440-50-8	22.7		0.576	
Lead	7439-92-1	0.756		0.103	
Manganese	7439-96-5	6.90		0.426	
Molybdenum	7439-98-7	1.08		0.302	
Nickel	7440-02-0	0.714		0.566	
Selenium	7782-49-2	0.646		0.00773	
Thallium	7440-28-0	0.00598		6.59E-4	
Vanadium	7440-62-2	0.601		0.0351	
Zinc	7440-66-6	14.8	U	87.3	



# CERTIFICATE OF ANALYSIS

Tetra Tech, Inc.  
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 Blue Bell, PA 19422  
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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-021425-HM      **Lab ID:** 5022427-07      **Sampled:** 02/14/25 23:59  
**Matrix:** Air      **Sample Volume:** 2120.249 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 04:58  
**Comments:** Q9524289 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.114	SL	0.0269
Arsenic	7440-38-2	0.209		0.00682
Barium	7440-39-3	2.55		1.18
Beryllium	7440-41-7	0.00624		0.00146
Cadmium	7440-43-9	0.0597		0.00393
Chromium	7440-47-3	1.30	U	1.87
Cobalt	7440-48-4	0.144		0.0399
Copper	7440-50-8	61.4		0.577
Lead	7439-92-1	0.556		0.103
Manganese	7439-96-5	5.85		0.427
Molybdenum	7439-98-7	3.20		0.302
Nickel	7440-02-0	0.611		0.567
Selenium	7782-49-2	0.623		0.00775
Thallium	7440-28-0	0.00607		6.61E-4
Vanadium	7440-62-2	0.548		0.0351
Zinc	7440-66-6	18.2	U	87.5



# CERTIFICATE OF ANALYSIS

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 1777 Sentry Pkwy, Bldg 12  
 Blue Bell, PA 19422  
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 PHONE: (703) 885-5495 FAX:

FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-021425-HM      **Lab ID:** 5022427-08      **Sampled:** 02/14/25 23:59  
**Matrix:** Air      **Sample Volume:** 2029.797 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 05:12  
**Comments:** Q9524288 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0605	SL	0.0281	
Arsenic	7440-38-2	0.205		0.00713	
Barium	7440-39-3	2.22		1.23	
Beryllium	7440-41-7	0.00529		0.00152	
Cadmium	7440-43-9	0.0576		0.00410	
Chromium	7440-47-3	1.17	U	1.96	
Cobalt	7440-48-4	0.134		0.0417	
Copper	7440-50-8	41.6		0.603	
Lead	7439-92-1	0.528		0.107	
Manganese	7439-96-5	4.79		0.446	
Molybdenum	7439-98-7	1.95		0.316	
Nickel	7440-02-0	0.580	U	0.592	
Selenium	7782-49-2	0.605		0.00810	
Thallium	7440-28-0	0.00544		6.90E-4	
Vanadium	7440-62-2	0.420		0.0367	
Zinc	7440-66-6	9.19	U	91.4	



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 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM08-021425-HM      **Lab ID:** 5022427-09      **Sampled:** 02/14/25 23:59  
**Matrix:** Air      **Sample Volume:** 2003.896 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 05:27  
**Comments:** Q9524284 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.157	SL	0.0284	
Arsenic	7440-38-2	0.271		0.00722	
Barium	7440-39-3	2.87		1.25	
Beryllium	7440-41-7	0.00682		0.00154	
Cadmium	7440-43-9	0.0601		0.00416	
Chromium	7440-47-3	1.39	U	1.98	
Cobalt	7440-48-4	0.210		0.0422	
Copper	7440-50-8	38.2		0.611	
Lead	7439-92-1	0.499		0.109	
Manganese	7439-96-5	7.69		0.452	
Molybdenum	7439-98-7	2.04		0.320	
Nickel	7440-02-0	0.715		0.600	
Selenium	7782-49-2	0.589		0.00820	
Thallium	7440-28-0	0.00543		6.99E-4	
Vanadium	7440-62-2	0.630		0.0372	
Zinc	7440-66-6	11.9	U	92.6	



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 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM05-021525-HM      **Lab ID:** 5022427-10      **Sampled:** 02/15/25 23:59  
**Matrix:** Air      **Sample Volume:** 2142.21 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 06:33  
**Comments:** Q9524282 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.139	SL	0.0266	
Arsenic	7440-38-2	0.205		0.00675	
Barium	7440-39-3	4.33		1.17	
Beryllium	7440-41-7	0.00823		0.00144	
Cadmium	7440-43-9	0.0522		0.00389	
Chromium	7440-47-3	1.61	U	1.85	
Cobalt	7440-48-4	0.244		0.0395	
Copper	7440-50-8	25.0		0.571	
Lead	7439-92-1	0.498		0.102	
Manganese	7439-96-5	8.91		0.423	
Molybdenum	7439-98-7	1.33		0.299	
Nickel	7440-02-0	0.978		0.561	
Selenium	7782-49-2	0.456		0.00767	
Thallium	7440-28-0	0.00690		6.54E-4	
Vanadium	7440-62-2	1.23		0.0348	
Zinc	7440-66-6	13.6	U	86.6	



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 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM02-021525-HM      **Lab ID:** 5022427-11      **Sampled:** 02/15/25 23:59  
**Matrix:** Air      **Sample Volume:** 2149.113 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 06:50  
**Comments:** Q9524281 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.289	SL	0.0265	
Arsenic	7440-38-2	0.247		0.00673	
Barium	7440-39-3	6.55		1.17	
Beryllium	7440-41-7	0.0114		0.00144	
Cadmium	7440-43-9	0.0762		0.00388	
Chromium	7440-47-3	1.75	U	1.85	
Cobalt	7440-48-4	0.324		0.0394	
Copper	7440-50-8	64.3		0.569	
Lead	7439-92-1	0.742		0.101	
Manganese	7439-96-5	11.0		0.422	
Molybdenum	7439-98-7	3.34		0.298	
Nickel	7440-02-0	1.17		0.559	
Selenium	7782-49-2	0.510		0.00765	
Thallium	7440-28-0	0.00698		6.52E-4	
Vanadium	7440-62-2	1.58		0.0347	
Zinc	7440-66-6	17.6	U	86.3	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-021525-HM      **Lab ID:** 5022427-12      **Sampled:** 02/15/25 23:59  
**Matrix:** Air      **Sample Volume:** 2074.952 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/25/25 20:53  
**Comments:** Q9524280 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.111	SL	0.0274	
Arsenic	7440-38-2	0.252		0.00697	
Barium	7440-39-3	3.37		1.21	
Beryllium	7440-41-7	0.00567		0.00149	
Cadmium	7440-43-9	0.0486		0.00401	
Chromium	7440-47-3	1.42	U	1.91	
Cobalt	7440-48-4	0.153		0.0408	
Copper	7440-50-8	33.9		0.590	
Lead	7439-92-1	0.442		0.105	
Manganese	7439-96-5	5.41		0.437	
Molybdenum	7439-98-7	1.35		0.309	
Nickel	7440-02-0	0.966		0.579	
Selenium	7782-49-2	0.468		0.00792	
Thallium	7440-28-0	0.00679		6.75E-4	
Vanadium	7440-62-2	0.931		0.0359	
Zinc	7440-66-6	9.56	U	89.4	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-021525-HM      **Lab ID:** 5022427-13      **Sampled:** 02/15/25 23:59  
**Matrix:** Air      **Sample Volume:** 2015.011 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 07:05  
**Comments:** Q9524279 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.171	SL	0.0283	
Arsenic	7440-38-2	0.306		0.00718	
Barium	7440-39-3	3.30		1.24	
Beryllium	7440-41-7	0.00870		0.00153	
Cadmium	7440-43-9	0.0553		0.00413	
Chromium	7440-47-3	1.68	U	1.97	
Cobalt	7440-48-4	0.292		0.0420	
Copper	7440-50-8	49.4		0.607	
Lead	7439-92-1	0.490		0.108	
Manganese	7439-96-5	11.1		0.450	
Molybdenum	7439-98-7	2.38		0.318	
Nickel	7440-02-0	1.01		0.597	
Selenium	7782-49-2	0.462		0.00816	
Thallium	7440-28-0	0.00706		6.95E-4	
Vanadium	7440-62-2	1.41		0.0370	
Zinc	7440-66-6	11.8	U	92.0	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-FB01-021525-HM      **Lab ID:** 5022427-14      **Sampled:** 02/15/25 00:00  
**Matrix:** Air      **Sample Volume:** 2142.21 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 07:20  
**Comments:** Q9524276 Field Blank - Received in good condition.

## Inorganics by Compendium Method IO-3.5

### Results      MDL

<u>Analyte</u>	<u>CAS Number</u>	<u>ng/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.0152	SL, U	0.0266
Arsenic	7440-38-2	0.00637	U	0.00675
Barium	7440-39-3	0.618	U	1.17
Beryllium	7440-41-7	1.14E-4	U	0.00144
Cadmium	7440-43-9	7.50E-4	U	0.00389
Chromium	7440-47-3	0.627	U	1.85
Cobalt	7440-48-4	0.00647	U	0.0395
Copper	7440-50-8	0.358	U	0.571
Lead	7439-92-1	0.0271	U	0.102
Manganese	7439-96-5	0.165	U	0.423
Molybdenum	7439-98-7	0.0819	U	0.299
Nickel	7440-02-0	0.164	U	0.561
Selenium	7782-49-2	0.00306	U	0.00767
Thallium	7440-28-0	1.06E-4	U	6.54E-4
Vanadium	7440-62-2	0.00935	U	0.0348
Zinc	7440-66-6	4.30	U	86.6



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**Description:** MFL-AM05-021625-HM      **Lab ID:** 5022427-15      **Sampled:** 02/16/25 23:59  
**Matrix:** Air      **Sample Volume:** 2125.166 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 07:33  
**Comments:** Q9524278 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.142	SL	0.0268
Arsenic	7440-38-2	0.153		0.00681
Barium	7440-39-3	3.20		1.18
Beryllium	7440-41-7	0.00610		0.00145
Cadmium	7440-43-9	0.0237		0.00392
Chromium	7440-47-3	1.22	U	1.87
Cobalt	7440-48-4	0.165		0.0398
Copper	7440-50-8	31.8		0.576
Lead	7439-92-1	0.480		0.103
Manganese	7439-96-5	6.44		0.426
Molybdenum	7439-98-7	1.73		0.302
Nickel	7440-02-0	0.738		0.566
Selenium	7782-49-2	0.231		0.00773
Thallium	7440-28-0	0.00225		6.59E-4
Vanadium	7440-62-2	0.905		0.0351
Zinc	7440-66-6	17.1	U	87.3



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 AQS SITE CODE:  
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**Description:** MFL-AM02-021625-HM      **Lab ID:** 5022427-16      **Sampled:** 02/16/25 23:59  
**Matrix:** Air      **Sample Volume:** 2119.363 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 07:46  
**Comments:** Q9524275 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.262	SL	0.0269	
Arsenic	7440-38-2	0.163		0.00682	
Barium	7440-39-3	4.59		1.18	
Beryllium	7440-41-7	0.00661		0.00146	
Cadmium	7440-43-9	0.0579		0.00393	
Chromium	7440-47-3	2.01		1.87	
Cobalt	7440-48-4	0.183		0.0399	
Copper	7440-50-8	73.3		0.577	
Lead	7439-92-1	0.564		0.103	
Manganese	7439-96-5	6.80		0.428	
Molybdenum	7439-98-7	3.55		0.302	
Nickel	7440-02-0	1.29		0.567	
Selenium	7782-49-2	0.248		0.00775	
Thallium	7440-28-0	0.00230		6.61E-4	
Vanadium	7440-62-2	1.00		0.0352	
Zinc	7440-66-6	15.4	U	87.5	



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**Description:** MFL-AM09-021625-HM      **Lab ID:** 5022427-17      **Sampled:** 02/16/25 23:59  
**Matrix:** Air      **Sample Volume:** 2066.234 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 08:01  
**Comments:** Q9524273 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.112	SL	0.0276	
Arsenic	7440-38-2	0.298		0.00700	
Barium	7440-39-3	2.69		1.21	
Beryllium	7440-41-7	0.00408		0.00150	
Cadmium	7440-43-9	0.0159		0.00403	
Chromium	7440-47-3	1.31	U	1.92	
Cobalt	7440-48-4	0.123		0.0409	
Copper	7440-50-8	45.3		0.592	
Lead	7439-92-1	0.412		0.106	
Manganese	7439-96-5	4.43		0.439	
Molybdenum	7439-98-7	1.91		0.310	
Nickel	7440-02-0	0.776		0.582	
Selenium	7782-49-2	0.230		0.00795	
Thallium	7440-28-0	0.00296		6.78E-4	
Vanadium	7440-62-2	0.736		0.0361	
Zinc	7440-66-6	13.1	U	89.8	



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 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-021625-HM      **Lab ID:** 5022427-18      **Sampled:** 02/16/25 23:59  
**Matrix:** Air      **Sample Volume:** 1993.864 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 08:15  
**Comments:** Q9524271 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.123	SL	0.0286
Arsenic	7440-38-2	0.141		0.00725
Barium	7440-39-3	2.25		1.26
Beryllium	7440-41-7	0.00353		0.00155
Cadmium	7440-43-9	0.0156		0.00418
Chromium	7440-47-3	1.03	U	1.99
Cobalt	7440-48-4	0.103		0.0424
Copper	7440-50-8	51.9		0.614
Lead	7439-92-1	0.263		0.109
Manganese	7439-96-5	4.29		0.455
Molybdenum	7439-98-7	2.09		0.322
Nickel	7440-02-0	0.596	U	0.603
Selenium	7782-49-2	0.217		0.00824
Thallium	7440-28-0	0.00197		7.03E-4
Vanadium	7440-62-2	0.691		0.0374
Zinc	7440-66-6	9.81	U	93.0



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM05-021725-HM      **Lab ID:** 5022427-19      **Sampled:** 02/17/25 23:59  
**Matrix:** Air      **Sample Volume:** 1972.533 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 00:34  
**Comments:** Q9524270 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.113	SL	0.0289	
Arsenic	7440-38-2	0.133		0.00733	
Barium	7440-39-3	2.72		1.27	
Beryllium	7440-41-7	0.00500		0.00157	
Cadmium	7440-43-9	0.0221		0.00422	
Chromium	7440-47-3	1.20	U	2.01	
Cobalt	7440-48-4	0.143		0.0429	
Copper	7440-50-8	36.0		0.620	
Lead	7439-92-1	0.348		0.111	
Manganese	7439-96-5	5.02		0.459	
Molybdenum	7439-98-7	1.39		0.325	
Nickel	7440-02-0	0.705		0.610	
Selenium	7782-49-2	0.160		0.00833	
Thallium	7440-28-0	0.00191		7.10E-4	
Vanadium	7440-62-2	0.742		0.0378	
Zinc	7440-66-6	22.4	U	94.0	



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 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM02-021725-HM      **Lab ID:** 5022427-20      **Sampled:** 02/17/25 23:59  
**Matrix:** Air      **Sample Volume:** 2218.817 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 08:28  
**Comments:** Q9524263 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.169	SL	0.0257	
Arsenic	7440-38-2	0.102		0.00652	
Barium	7440-39-3	2.90		1.13	
Beryllium	7440-41-7	0.00425		0.00139	
Cadmium	7440-43-9	0.0133		0.00375	
Chromium	7440-47-3	1.63	U	1.79	
Cobalt	7440-48-4	0.117		0.0381	
Copper	7440-50-8	72.9		0.551	
Lead	7439-92-1	0.347		0.0983	
Manganese	7439-96-5	4.44		0.408	
Molybdenum	7439-98-7	2.55		0.289	
Nickel	7440-02-0	0.617		0.542	
Selenium	7782-49-2	0.162		0.00741	
Thallium	7440-28-0	0.00169		6.31E-4	
Vanadium	7440-62-2	0.703		0.0336	
Zinc	7440-66-6	12.6	U	83.6	



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 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM09-021725-HM      **Lab ID:** 5022427-21      **Sampled:** 02/17/25 23:59  
**Matrix:** Air      **Sample Volume:** 1645.704 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 08:42  
**Comments:** Q9524262 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.107	SL	0.0346	
Arsenic	7440-38-2	0.283		0.00879	
Barium	7440-39-3	2.87		1.52	
Beryllium	7440-41-7	0.00379		0.00188	
Cadmium	7440-43-9	0.0235		0.00506	
Chromium	7440-47-3	1.84	U	2.41	
Cobalt	7440-48-4	0.126		0.0514	
Copper	7440-50-8	53.1		0.743	
Lead	7439-92-1	0.753		0.132	
Manganese	7439-96-5	4.14		0.551	
Molybdenum	7439-98-7	1.82		0.390	
Nickel	7440-02-0	1.03		0.731	
Selenium	7782-49-2	0.228		0.00999	
Thallium	7440-28-0	0.00229		8.51E-4	
Vanadium	7440-62-2	0.761		0.0453	
Zinc	7440-66-6	23.4	U	113	



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 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM08-021725-HM      **Lab ID:** 5022427-22      **Sampled:** 02/17/25 23:59  
**Matrix:** Air      **Sample Volume:** 2052.845 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 10:11  
**Comments:** Q9524261 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.129	SL	0.0277	
Arsenic	7440-38-2	0.132		0.00705	
Barium	7440-39-3	2.13		1.22	
Beryllium	7440-41-7	0.00327		0.00151	
Cadmium	7440-43-9	0.0127		0.00406	
Chromium	7440-47-3	1.32	U	1.93	
Cobalt	7440-48-4	0.0925		0.0412	
Copper	7440-50-8	46.7		0.596	
Lead	7439-92-1	0.262		0.106	
Manganese	7439-96-5	3.39		0.441	
Molybdenum	7439-98-7	2.15		0.312	
Nickel	7440-02-0	0.585	U	0.586	
Selenium	7782-49-2	0.200		0.00800	
Thallium	7440-28-0	0.00229		6.82E-4	
Vanadium	7440-62-2	0.664		0.0363	
Zinc	7440-66-6	11.0	U	90.4	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-FB01-021725-HM      **Lab ID:** 5022427-23      **Sampled:** 02/17/25 00:00  
**Matrix:** Air      **Sample Volume:** 1972.533 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 10:25  
**Comments:** Q9524256 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0186	SL, U	0.0289	
Arsenic	7440-38-2	0.00388	U	0.00733	
Barium	7440-39-3	0.549	U	1.27	
Beryllium	7440-41-7	ND	U	0.00157	
Cadmium	7440-43-9	5.65E-4	U	0.00422	
Chromium	7440-47-3	0.648	U	2.01	
Cobalt	7440-48-4	0.00583	U	0.0429	
Copper	7440-50-8	0.307	U	0.620	
Lead	7439-92-1	0.0317	U	0.111	
Manganese	7439-96-5	0.108	U	0.459	
Molybdenum	7439-98-7	0.0838	U	0.325	
Nickel	7440-02-0	0.184	U	0.610	
Selenium	7782-49-2	0.00432	U	0.00833	
Thallium	7440-28-0	1.49E-4	U	7.10E-4	
Vanadium	7440-62-2	ND	U	0.0378	
Zinc	7440-66-6	5.19	U	94.0	



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**Description:** MFL-AM05-021825-HM      **Lab ID:** 5022427-24      **Sampled:** 02/18/25 23:59  
**Matrix:** Air      **Sample Volume:** 2063.056 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 10:38  
**Comments:** Q9524260 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.183	SL	0.0276	
Arsenic	7440-38-2	0.154		0.00701	
Barium	7440-39-3	4.19		1.21	
Beryllium	7440-41-7	0.00461		0.00150	
Cadmium	7440-43-9	0.0601		0.00404	
Chromium	7440-47-3	1.27	U	1.92	
Cobalt	7440-48-4	0.169		0.0410	
Copper	7440-50-8	33.4		0.593	
Lead	7439-92-1	0.404		0.106	
Manganese	7439-96-5	5.75		0.439	
Molybdenum	7439-98-7	1.64		0.311	
Nickel	7440-02-0	0.956		0.583	
Selenium	7782-49-2	0.275		0.00797	
Thallium	7440-28-0	0.00457		6.79E-4	
Vanadium	7440-62-2	0.888		0.0361	
Zinc	7440-66-6	29.0	U	89.9	



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 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
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**Description:** MFL-AM02-021825-HM      **Lab ID:** 5022427-25      **Sampled:** 02/18/25 23:59  
**Matrix:** Air      **Sample Volume:** 2154.193 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 10:52  
**Comments:** Q9524258 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.202	SL	0.0264	
Arsenic	7440-38-2	0.196		0.00671	
Barium	7440-39-3	4.00		1.16	
Beryllium	7440-41-7	0.00486		0.00144	
Cadmium	7440-43-9	0.0316		0.00387	
Chromium	7440-47-3	1.15	U	1.84	
Cobalt	7440-48-4	0.162		0.0393	
Copper	7440-50-8	92.1		0.568	
Lead	7439-92-1	0.356		0.101	
Manganese	7439-96-5	5.33		0.421	
Molybdenum	7439-98-7	3.86		0.298	
Nickel	7440-02-0	0.849		0.558	
Selenium	7782-49-2	0.285		0.00763	
Thallium	7440-28-0	0.00437		6.50E-4	
Vanadium	7440-62-2	0.928		0.0346	
Zinc	7440-66-6	15.5	U	86.1	



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**Description:** MFL-AM09-021825-HM      **Lab ID:** 5022427-26      **Sampled:** 02/18/25 23:59  
**Matrix:** Air      **Sample Volume:** 1947.936 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 11:07  
**Comments:** Q9524257 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.116	SL	0.0292	
Arsenic	7440-38-2	0.437		0.00743	
Barium	7440-39-3	3.92		1.29	
Beryllium	7440-41-7	0.00665		0.00159	
Cadmium	7440-43-9	0.0328		0.00428	
Chromium	7440-47-3	1.68	U	2.04	
Cobalt	7440-48-4	0.219		0.0434	
Copper	7440-50-8	65.0		0.628	
Lead	7439-92-1	0.773		0.112	
Manganese	7439-96-5	7.50		0.465	
Molybdenum	7439-98-7	2.26		0.329	
Nickel	7440-02-0	0.991		0.617	
Selenium	7782-49-2	0.288		0.00844	
Thallium	7440-28-0	0.00435		7.19E-4	
Vanadium	7440-62-2	1.04		0.0383	
Zinc	7440-66-6	17.2	U	95.2	



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**Description:** MFL-AM08-021825-HM      **Lab ID:** 5022427-27      **Sampled:** 02/18/25 23:59  
**Matrix:** Air      **Sample Volume:** 2093.546 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 11:22  
**Comments:** Q9524255 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.133	SL	0.0272	
Arsenic	7440-38-2	0.232		0.00691	
Barium	7440-39-3	2.08		1.20	
Beryllium	7440-41-7	0.00277		0.00148	
Cadmium	7440-43-9	0.0753		0.00398	
Chromium	7440-47-3	0.984	U	1.90	
Cobalt	7440-48-4	0.0865		0.0404	
Copper	7440-50-8	48.8		0.584	
Lead	7439-92-1	0.397		0.104	
Manganese	7439-96-5	3.07		0.433	
Molybdenum	7439-98-7	1.93		0.306	
Nickel	7440-02-0	0.669		0.574	
Selenium	7782-49-2	0.265		0.00785	
Thallium	7440-28-0	0.00363		6.69E-4	
Vanadium	7440-62-2	0.697		0.0356	
Zinc	7440-66-6	12.3	U	88.6	



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 SUBMITTED: 02/24/25  
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**Description:** MFL-AM05-021925-HM      **Lab ID:** 5022427-28      **Sampled:** 02/19/25 23:59  
**Matrix:** Air      **Sample Volume:** 2036.544 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 11:36  
**Comments:** Q9524254 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>
Antimony	7440-36-0	0.132	SL	0.0280
Arsenic	7440-38-2	0.186		0.00710
Barium	7440-39-3	4.17		1.23
Beryllium	7440-41-7	0.00951		0.00152
Cadmium	7440-43-9	0.113		0.00409
Chromium	7440-47-3	1.65	U	1.95
Cobalt	7440-48-4	0.307		0.0415
Copper	7440-50-8	33.2		0.601
Lead	7439-92-1	0.330		0.107
Manganese	7439-96-5	10.8		0.445
Molybdenum	7439-98-7	1.65		0.315
Nickel	7440-02-0	0.950		0.590
Selenium	7782-49-2	0.217		0.00807
Thallium	7440-28-0	0.00122		6.88E-4
Vanadium	7440-62-2	1.33		0.0366
Zinc	7440-66-6	13.4	U	91.1



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 SUBMITTED: 02/24/25  
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**Description:** MFL-AM02-021925-HM      **Lab ID:** 5022427-29      **Sampled:** 02/19/25 23:59  
**Matrix:** Air      **Sample Volume:** 2170.408 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 11:50  
**Comments:** Q9524252 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.271	SL	0.0262	
Arsenic	7440-38-2	0.156		0.00666	
Barium	7440-39-3	5.05		1.15	
Beryllium	7440-41-7	0.00737		0.00142	
Cadmium	7440-43-9	0.0158		0.00384	
Chromium	7440-47-3	1.33	U	1.83	
Cobalt	7440-48-4	0.239		0.0390	
Copper	7440-50-8	77.5		0.564	
Lead	7439-92-1	0.424		0.100	
Manganese	7439-96-5	7.55		0.418	
Molybdenum	7439-98-7	3.86		0.295	
Nickel	7440-02-0	0.901		0.554	
Selenium	7782-49-2	0.204		0.00757	
Thallium	7440-28-0	0.00110		6.45E-4	
Vanadium	7440-62-2	1.13		0.0343	
Zinc	7440-66-6	29.0	U	85.5	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM09-021925-HM      **Lab ID:** 5022427-30      **Sampled:** 02/19/25 23:59  
**Matrix:** Air      **Sample Volume:** 2027.185 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 12:04  
**Comments:** Q9524250 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0897	SL	0.0281	
Arsenic	7440-38-2	0.148		0.00714	
Barium	7440-39-3	3.32		1.24	
Beryllium	7440-41-7	0.00426		0.00152	
Cadmium	7440-43-9	0.0529		0.00411	
Chromium	7440-47-3	1.29	U	1.96	
Cobalt	7440-48-4	0.133		0.0417	
Copper	7440-50-8	36.2		0.604	
Lead	7439-92-1	0.357		0.108	
Manganese	7439-96-5	4.61		0.447	
Molybdenum	7439-98-7	1.38		0.316	
Nickel	7440-02-0	0.812		0.593	
Selenium	7782-49-2	0.190		0.00811	
Thallium	7440-28-0	8.33E-4		6.91E-4	
Vanadium	7440-62-2	0.788		0.0368	
Zinc	7440-66-6	8.41	U	91.5	



# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-AM08-021925-HM      **Lab ID:** 5022427-31      **Sampled:** 02/19/25 23:59  
**Matrix:** Air      **Sample Volume:** 2169.144 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 13:43  
**Comments:** Q9524248 - 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.131	SL	0.0263	
Arsenic	7440-38-2	0.140		0.00667	
Barium	7440-39-3	2.21		1.16	
Beryllium	7440-41-7	0.00378		0.00143	
Cadmium	7440-43-9	0.00877		0.00384	
Chromium	7440-47-3	1.71	U	1.83	
Cobalt	7440-48-4	0.119		0.0390	
Copper	7440-50-8	61.3		0.564	
Lead	7439-92-1	0.206		0.101	
Manganese	7439-96-5	4.07		0.418	
Molybdenum	7439-98-7	2.12		0.296	
Nickel	7440-02-0	0.978		0.554	
Selenium	7782-49-2	0.165		0.00758	
Thallium	7440-28-0	8.35E-4		6.46E-4	
Vanadium	7440-62-2	0.798		0.0344	
Zinc	7440-66-6	7.79	U	85.5	



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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

**Description:** MFL-FB01-021925-HM      **Lab ID:** 5022427-32      **Sampled:** 02/19/25 00:00  
**Matrix:** Air      **Sample Volume:** 2036.544 m<sup>3</sup>      **Received:** 02/24/25 11:05  
**Filter ID:**      **Analysis Date:** 02/26/25 13:59  
**Comments:** Q9524246 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/m<sup>3</sup> Air</u>	<u>Flag</u>	<u>ng/m<sup>3</sup> Air</u>	
Antimony	7440-36-0	0.0144	SL, U	0.0280	
<b>Arsenic</b>	<b>7440-38-2</b>	<b>0.00901</b>	FB-01	<b>0.00710</b>	
Barium	7440-39-3	0.624	U	1.23	
Beryllium	7440-41-7	1.16E-4	U	0.00152	
Cadmium	7440-43-9	0.00215	U	0.00409	
Chromium	7440-47-3	0.772	U	1.95	
Cobalt	7440-48-4	0.00873	U	0.0415	
Copper	7440-50-8	0.328	U	0.601	
Lead	7439-92-1	0.0366	U	0.107	
Manganese	7439-96-5	0.246	U	0.445	
Molybdenum	7439-98-7	0.0878	U	0.315	
Nickel	7440-02-0	0.198	U	0.590	
Selenium	7782-49-2	0.00241	U	0.00807	
Thallium	7440-28-0	1.54E-4	U	6.88E-4	
Vanadium	7440-62-2	0.00977	U	0.0366	
Zinc	7440-66-6	3.58	U	91.1	



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AQS SITE CODE:  
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Blank (2502053-CCB1)

Prepared & Analyzed: 02/25/25

Antimony	0.961		ng/l							
Arsenic	8.17		ng/l							
Barium	4.74		ng/l							
Beryllium	-0.406		ng/l							U
Cadmium	0.358		ng/l							
Chromium	5.95		ng/l							
Cobalt	1.18		ng/l							
Copper	50.5		ng/l							
Lead	7.45		ng/l							
Manganese	14.3		ng/l							
Molybdenum	22.0		ng/l							
Nickel	2.00		ng/l							
Selenium	6.47		ng/l							
Thallium	0.994		ng/l							
Vanadium	-17.1		ng/l							U
Zinc	-73.1		ng/l							U

### Calibration Blank (2502053-CCB2)

Prepared & Analyzed: 02/25/25

Antimony	0.0781		ng/l							
Arsenic	5.94		ng/l							
Barium	0.355		ng/l							
Beryllium	-0.768		ng/l							U
Cadmium	-0.0502		ng/l							U
Chromium	3.85		ng/l							
Cobalt	0.235		ng/l							
Copper	21.2		ng/l							
Lead	2.90		ng/l							
Manganese	4.81		ng/l							
Molybdenum	4.03		ng/l							
Nickel	0.00128		ng/l							
Selenium	6.65		ng/l							
Thallium	0.722		ng/l							
Vanadium	-25.3		ng/l							U
Zinc	-105		ng/l							U

### Calibration Blank (2502053-CCB3)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.724		ng/l							
Arsenic	3.79		ng/l							
Barium	0.626		ng/l							
Beryllium	-1.10		ng/l							U

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FILE #: 4205.00.003.001  
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 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Blank (2502053-CCB3) Contin

Prepared: 02/25/25 Analyzed: 02/26/25

Cadmium	0.107		ng/l							
Chromium	4.16		ng/l							
Cobalt	0.129		ng/l							
Copper	24.3		ng/l							
Lead	2.82		ng/l							
Manganese	5.18		ng/l							
Molybdenum	2.83		ng/l							
Nickel	-0.822		ng/l							U
Selenium	7.31		ng/l							
Thallium	0.879		ng/l							
Vanadium	-39.9		ng/l							U
Zinc	-89.0		ng/l							U

### Calibration Blank (2502053-CCB4)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.533		ng/l							
Arsenic	7.68		ng/l							
Barium	6.56		ng/l							
Beryllium	-1.45		ng/l							U
Cadmium	0.361		ng/l							
Chromium	8.14		ng/l							
Cobalt	0.648		ng/l							
Copper	37.5		ng/l							
Lead	4.43		ng/l							
Manganese	10.2		ng/l							
Molybdenum	4.41		ng/l							
Nickel	3.66		ng/l							
Selenium	9.75		ng/l							
Thallium	0.769		ng/l							
Vanadium	-39.9		ng/l							U
Zinc	-76.3		ng/l							U

### Calibration Blank (2502053-CCB5)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.688		ng/l							
Arsenic	5.17		ng/l							
Barium	2.31		ng/l							
Beryllium	-1.67		ng/l							U
Cadmium	0.266		ng/l							
Chromium	8.32		ng/l							
Cobalt	0.512		ng/l							
Copper	35.2		ng/l							

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Blank (2502053-CCB5) Contin

Prepared: 02/25/25 Analyzed: 02/26/25

Lead	4.26		ng/l							
Manganese	9.46		ng/l							
Molybdenum	6.17		ng/l							
Nickel	1.75		ng/l							
Selenium	-3.74		ng/l							U
Thallium	1.09		ng/l							
Vanadium	-56.1		ng/l							U
Zinc	-82.0		ng/l							U

### Calibration Blank (2502053-CCB6)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.860		ng/l							
Arsenic	7.73		ng/l							
Barium	3.01		ng/l							
Beryllium	-1.61		ng/l							U
Cadmium	0.171		ng/l							
Chromium	6.98		ng/l							
Cobalt	0.457		ng/l							
Copper	35.4		ng/l							
Lead	4.07		ng/l							
Manganese	7.57		ng/l							
Molybdenum	5.09		ng/l							
Nickel	1.63		ng/l							
Selenium	11.1		ng/l							
Thallium	1.08		ng/l							
Vanadium	-62.1		ng/l							U
Zinc	-63.3		ng/l							U

### Calibration Blank (2502053-CCB7)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	1.56		ng/l							
Arsenic	3.61		ng/l							
Barium	8.75		ng/l							
Beryllium	-0.892		ng/l							U
Cadmium	0.708		ng/l							
Chromium	16.8		ng/l							
Cobalt	2.09		ng/l							
Copper	105		ng/l							
Lead	9.89		ng/l							
Manganese	25.3		ng/l							
Molybdenum	8.13		ng/l							
Nickel	4.00		ng/l							

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Blank (2502053-CCB7) Contin

Prepared: 02/25/25 Analyzed: 02/26/25

Selenium	-0.541		ng/l							U
Thallium	1.02		ng/l							
Vanadium	-60.3		ng/l							U
Zinc	-87.8		ng/l							U

### Calibration Check (2502053-CCV1)

Prepared & Analyzed: 02/25/25

Antimony	20000		ng/l	20008		99.9	90-110			
Arsenic	20000		ng/l	20004		99.8	90-110			
Barium	201000		ng/l	200200		101	90-110			
Beryllium	5080		ng/l	5002.5		102	90-110			
Cadmium	20000		ng/l	20014		99.9	90-110			
Chromium	235000		ng/l	240050		98.0	90-110			
Cobalt	50400		ng/l	50020		101	90-110			
Copper	2.03E6		ng/l	2.0020E6		101	90-110			
Lead	200000		ng/l	200060		99.7	90-110			
Manganese	501000		ng/l	498900		100	90-110			
Molybdenum	49700		ng/l	50005		99.3	90-110			
Nickel	122000		ng/l	120040		101	90-110			
Selenium	20000		ng/l	20002		100	90-110			
Thallium	495		ng/l	499.95		98.9	90-110			
Vanadium	19700		ng/l	20030		98.3	90-110			
Zinc	534000		ng/l	500000		107	90-110			

### Calibration Check (2502053-CCV2)

Prepared & Analyzed: 02/25/25

Antimony	20200		ng/l	20008		101	90-110			
Arsenic	20200		ng/l	20004		101	90-110			
Barium	199000		ng/l	200200		99.3	90-110			
Beryllium	5140		ng/l	5002.5		103	90-110			
Cadmium	20300		ng/l	20014		101	90-110			
Chromium	240000		ng/l	240050		100	90-110			
Cobalt	50300		ng/l	50020		101	90-110			
Copper	2.05E6		ng/l	2.0020E6		102	90-110			
Lead	200000		ng/l	200060		100	90-110			
Manganese	503000		ng/l	498900		101	90-110			
Molybdenum	50000		ng/l	50005		100	90-110			
Nickel	122000		ng/l	120040		101	90-110			
Selenium	19800		ng/l	20002		99.2	90-110			
Thallium	489		ng/l	499.95		97.8	90-110			
Vanadium	20000		ng/l	20030		99.8	90-110			
Zinc	540000		ng/l	500000		108	90-110			

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Check (2502053-CCV3)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	20400		ng/l	20008		102	90-110			
Arsenic	20300		ng/l	20004		102	90-110			
Barium	200000		ng/l	200200		100	90-110			
Beryllium	5010		ng/l	5002.5		100	90-110			
Cadmium	20600		ng/l	20014		103	90-110			
Chromium	240000		ng/l	240050		99.9	90-110			
Cobalt	50100		ng/l	50020		100	90-110			
Copper	2.04E6		ng/l	2.0020E6		102	90-110			
Lead	202000		ng/l	200060		101	90-110			
Manganese	500000		ng/l	498900		100	90-110			
Molybdenum	50700		ng/l	50005		101	90-110			
Nickel	122000		ng/l	120040		101	90-110			
Selenium	20300		ng/l	20002		101	90-110			
Thallium	490		ng/l	499.95		97.9	90-110			
Vanadium	20100		ng/l	20030		100	90-110			
Zinc	544000		ng/l	500000		109	90-110			

### Calibration Check (2502053-CCV4)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	20500		ng/l	20008		103	90-110			
Arsenic	20500		ng/l	20004		103	90-110			
Barium	203000		ng/l	200200		101	90-110			
Beryllium	5210		ng/l	5002.5		104	90-110			
Cadmium	20700		ng/l	20014		103	90-110			
Chromium	244000		ng/l	240050		102	90-110			
Cobalt	50700		ng/l	50020		101	90-110			
Copper	2.08E6		ng/l	2.0020E6		104	90-110			
Lead	202000		ng/l	200060		101	90-110			
Manganese	511000		ng/l	498900		102	90-110			
Molybdenum	51600		ng/l	50005		103	90-110			
Nickel	123000		ng/l	120040		103	90-110			
Selenium	20000		ng/l	20002		100	90-110			
Thallium	491		ng/l	499.95		98.1	90-110			
Vanadium	20300		ng/l	20030		101	90-110			
Zinc	549000		ng/l	500000		110	90-110			

### Calibration Check (2502053-CCV5)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	20800		ng/l	20008		104	90-110			
Arsenic	20500		ng/l	20004		103	90-110			
Barium	211000		ng/l	200200		105	90-110			
Beryllium	5200		ng/l	5002.5		104	90-110			

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Check (2502053-CCV5) Contin

Prepared: 02/25/25 Analyzed: 02/26/25

Cadmium	20900		ng/l	20014		105	90-110			
Chromium	247000		ng/l	240050		103	90-110			
Cobalt	51100		ng/l	50020		102	90-110			
Copper	2.09E6		ng/l	2.0020E6		105	90-110			
Lead	203000		ng/l	200060		102	90-110			
Manganese	513000		ng/l	498900		103	90-110			
Molybdenum	53100		ng/l	50005		106	90-110			
Nickel	125000		ng/l	120040		104	90-110			
Selenium	20100		ng/l	20002		101	90-110			
Thallium	487		ng/l	499.95		97.3	90-110			
Vanadium	20500		ng/l	20030		102	90-110			
Zinc	552000		ng/l	500000		110	90-110			

### Calibration Check (2502053-CCV6)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	20600		ng/l	20008		103	90-110			
Arsenic	20500		ng/l	20004		102	90-110			
Barium	213000		ng/l	200200		107	90-110			
Beryllium	4770		ng/l	5002.5		95.3	90-110			
Cadmium	20900		ng/l	20014		104	90-110			
Chromium	248000		ng/l	240050		103	90-110			
Cobalt	50900		ng/l	50020		102	90-110			
Copper	2.09E6		ng/l	2.0020E6		105	90-110			
Lead	202000		ng/l	200060		101	90-110			
Manganese	504000		ng/l	498900		101	90-110			
Molybdenum	53500		ng/l	50005		107	90-110			
Nickel	124000		ng/l	120040		103	90-110			
Selenium	20000		ng/l	20002		100	90-110			
Thallium	490		ng/l	499.95		98.0	90-110			
Vanadium	20500		ng/l	20030		102	90-110			
Zinc	548000		ng/l	500000		110	90-110			

### Calibration Check (2502053-CCV7)

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	20700		ng/l	20008		104	90-110			
Arsenic	20500		ng/l	20004		102	90-110			
Barium	208000		ng/l	200200		104	90-110			
Beryllium	5080		ng/l	5002.5		102	90-110			
Cadmium	20900		ng/l	20014		105	90-110			
Chromium	248000		ng/l	240050		103	90-110			
Cobalt	51000		ng/l	50020		102	90-110			
Copper	2.08E6		ng/l	2.0020E6		104	90-110			

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# 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: 03/04/25 13:23  
 SUBMITTED: 02/24/25  
 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Calibration Check (2502053-CCV7) Contin

Prepared: 02/25/25 Analyzed: 02/26/25

Lead	204000		ng/l	200060		102	90-110			
Manganese	507000		ng/l	498900		102	90-110			
Molybdenum	52700		ng/l	50005		105	90-110			
Nickel	124000		ng/l	120040		103	90-110			
Selenium	19900		ng/l	20002		99.5	90-110			
Thallium	493		ng/l	499.95		98.5	90-110			
Vanadium	20600		ng/l	20030		103	90-110			
Zinc	546000		ng/l	500000		109	90-110			

### High Cal Check (2502053-HCV1)

Prepared & Analyzed: 02/25/25

Antimony	39900		ng/l	40016		99.8	95-105			
Arsenic	40000		ng/l	40008		99.9	95-105			
Barium	399000		ng/l	400400		99.5	95-105			
Beryllium	9990		ng/l	10005		99.8	95-105			
Cadmium	39900		ng/l	40028		99.8	95-105			
Chromium	473000		ng/l	480100		98.5	95-105			
Cobalt	99600		ng/l	100040		99.5	95-105			
Copper	3.96E6		ng/l	4.0040E6		98.8	95-105			
Lead	401000		ng/l	400120		100	95-105			
Manganese	991000		ng/l	997800		99.3	95-105			
Molybdenum	99800		ng/l	100010		99.8	95-105			
Nickel	238000		ng/l	240070		99.2	95-105			
Selenium	39800		ng/l	40004		99.4	95-105			
Thallium	1000		ng/l	999.90		100	95-105			
Vanadium	39600		ng/l	40060		98.8	95-105			
Zinc	980000		ng/l	1.0000E6		98.0	95-105			

### Initial Cal Blank (2502053-ICB1)

Prepared & Analyzed: 02/25/25

Antimony	1.33		ng/l							
Arsenic	2.77		ng/l							
Barium	5.42		ng/l							
Beryllium	0.160		ng/l							
Cadmium	0.851		ng/l							
Chromium	12.4		ng/l							
Cobalt	1.81		ng/l							
Copper	109		ng/l							
Lead	14.1		ng/l							
Manganese	22.6		ng/l							
Molybdenum	17.5		ng/l							
Nickel	0.0762		ng/l							

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Initial Cal Blank (2502053-ICB1) Continuum

Prepared & Analyzed: 02/25/25

Selenium	-3.80		ng/l							U
Thallium	1.44		ng/l							
Vanadium	-37.0		ng/l							U
Zinc	-32.3		ng/l							U

### Initial Cal Check (2502053-ICV1)

Prepared & Analyzed: 02/25/25

Antimony	19100		ng/l	20000		95.5	90-110			
Arsenic	19400		ng/l	20000		97.1	90-110			
Barium	191000		ng/l	200000		95.7	90-110			
Beryllium	5020		ng/l	5000.0		100	90-110			
Cadmium	19800		ng/l	20000		99.2	90-110			
Chromium	231000		ng/l	240000		96.2	90-110			
Cobalt	48300		ng/l	50000		96.7	90-110			
Copper	1.99E6		ng/l	2.0000E6		99.5	90-110			
Lead	194000		ng/l	200000		96.8	90-110			
Manganese	478000		ng/l	500000		95.5	90-110			
Molybdenum	47400		ng/l	50000		94.9	90-110			
Nickel	117000		ng/l	120000		97.6	90-110			
Selenium	19800		ng/l	20000		98.8	90-110			
Thallium	489		ng/l	500.00		97.7	90-110			
Vanadium	19600		ng/l	20000		97.9	90-110			
Zinc	524000		ng/l	500000		105	90-110			

### Interference Check A (2502053-IFA1)

Prepared & Analyzed: 02/25/25

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	296000		ng/l	300000		98.6	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

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch 2502053 - B5B2506

### Interference Check B (2502053-IFB1)

Prepared & Analyzed: 02/25/25

Antimony	20200		ng/l	20008		101	80-120			
Arsenic	20100		ng/l	20004		100	80-120			
Barium	200000		ng/l	200200		99.9	80-120			
Beryllium	4960		ng/l	5002.5		99.2	80-120			
Cadmium	19700		ng/l	20014		98.4	80-120			
Chromium	228000		ng/l	240050		94.9	80-120			
Cobalt	48900		ng/l	50020		97.8	80-120			
Copper	1.88E6		ng/l	2.0020E6		94.2	80-120			
Lead	203000		ng/l	200060		102	80-120			
Manganese	499000		ng/l	498900		100	80-120			
Molybdenum	350000		ng/l	350000		100	80-120			
Nickel	115000		ng/l	120040		95.6	80-120			
Selenium	18700		ng/l	20002		93.3	80-120			
Thallium	514		ng/l	499.95		103	80-120			
Vanadium	19100		ng/l	20030		95.4	80-120			
Zinc	488000		ng/l	500000		97.6	80-120			

Batch B5B2506 - ICP-MS Extraction

### Blank (B5B2506-BLK1)

Prepared & Analyzed: 02/25/25

Antimony	ND	0.0350	ng/m <sup>3</sup> Air							SL, U
Arsenic	ND	0.00889	ng/m <sup>3</sup> Air							U
Barium	ND	1.54	ng/m <sup>3</sup> Air							U
Beryllium	ND	0.00190	ng/m <sup>3</sup> Air							U
Cadmium	ND	0.00512	ng/m <sup>3</sup> Air							U
Chromium	ND	2.44	ng/m <sup>3</sup> Air							U
Cobalt	ND	0.0520	ng/m <sup>3</sup> Air							U
Copper	ND	0.752	ng/m <sup>3</sup> Air							U
Lead	ND	0.134	ng/m <sup>3</sup> Air							U
Manganese	ND	0.557	ng/m <sup>3</sup> Air							U
Molybdenum	ND	0.394	ng/m <sup>3</sup> Air							U
Nickel	ND	0.739	ng/m <sup>3</sup> Air							U
Selenium	ND	0.0101	ng/m <sup>3</sup> Air							U
Thallium	ND	8.61E-4	ng/m <sup>3</sup> Air							U
Vanadium	ND	0.0458	ng/m <sup>3</sup> Air							U
Zinc	ND	114	ng/m <sup>3</sup> Air							U

### LCS (B5B2506-BS1)

Prepared & Analyzed: 02/25/25

Antimony	0.935	0.0350	ng/m <sup>3</sup> Air	1.3835		67.6	80-120			SL
Arsenic	2.73	0.00889	ng/m <sup>3</sup> Air	2.7664		98.7	80-120			
Barium	28.0	1.54	ng/m <sup>3</sup> Air	27.686		101	80-120			

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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B2506 - ICP-MS Extraction

### LCS (B5B2506-BS1) Continued

Prepared & Analyzed: 02/25/25

Beryllium	1.36	0.00190	ng/m <sup>3</sup> Air	1.3836		98.0	80-120			
Cadmium	1.41	0.00512	ng/m <sup>3</sup> Air	1.3839		102	80-120			
Chromium	15.4	2.44	ng/m <sup>3</sup> Air	13.832		111	80-120			
Cobalt	1.36	0.0520	ng/m <sup>3</sup> Air	1.3835		98.6	80-120			
Copper	30.1	0.752	ng/m <sup>3</sup> Air	27.686		109	80-120			
Lead	13.9	0.134	ng/m <sup>3</sup> Air	13.833		101	80-120			
Manganese	8.86	0.557	ng/m <sup>3</sup> Air	8.2792		107	80-120			
Molybdenum	1.42	0.394	ng/m <sup>3</sup> Air	1.3831		103	80-120			
Nickel	2.96	0.739	ng/m <sup>3</sup> Air	2.7667		107	80-120			
Selenium	2.75	0.0101	ng/m <sup>3</sup> Air	2.7661		99.6	80-120			
Thallium	0.134	8.61E-4	ng/m <sup>3</sup> Air	0.13828		96.7	80-120			
Vanadium	2.74	0.0458	ng/m <sup>3</sup> Air	2.7700		99.1	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### LCS (B5B2506-BS2)

Prepared & Analyzed: 02/25/25

Antimony	0.975	0.0350	ng/m <sup>3</sup> Air	1.3835		70.5	80-120			SL
Arsenic	2.76	0.00889	ng/m <sup>3</sup> Air	2.7664		99.8	80-120			
Barium	28.4	1.54	ng/m <sup>3</sup> Air	27.686		103	80-120			
Beryllium	1.36	0.00190	ng/m <sup>3</sup> Air	1.3836		98.5	80-120			
Cadmium	1.42	0.00512	ng/m <sup>3</sup> Air	1.3839		103	80-120			
Chromium	15.6	2.44	ng/m <sup>3</sup> Air	13.832		113	80-120			
Cobalt	1.37	0.0520	ng/m <sup>3</sup> Air	1.3835		99.1	80-120			
Copper	30.4	0.752	ng/m <sup>3</sup> Air	27.686		110	80-120			
Lead	14.2	0.134	ng/m <sup>3</sup> Air	13.833		102	80-120			
Manganese	8.98	0.557	ng/m <sup>3</sup> Air	8.2792		108	80-120			
Molybdenum	1.46	0.394	ng/m <sup>3</sup> Air	1.3831		105	80-120			
Nickel	2.99	0.739	ng/m <sup>3</sup> Air	2.7667		108	80-120			
Selenium	2.73	0.0101	ng/m <sup>3</sup> Air	2.7661		98.8	80-120			
Thallium	0.138	8.61E-4	ng/m <sup>3</sup> Air	0.13828		99.5	80-120			
Vanadium	2.79	0.0458	ng/m <sup>3</sup> Air	2.7700		101	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

### LCS (B5B2506-BS3)

Prepared & Analyzed: 02/25/25

Antimony	1.37	0.0350	ng/m <sup>3</sup> Air	1.3835		98.9	80-120			SL
Arsenic	2.72	0.00889	ng/m <sup>3</sup> Air	2.7664		98.4	80-120			
Barium	27.3	1.54	ng/m <sup>3</sup> Air	27.686		98.5	80-120			
Beryllium	1.34	0.00190	ng/m <sup>3</sup> Air	1.3836		97.0	80-120			
Cadmium	1.39	0.00512	ng/m <sup>3</sup> Air	1.3839		100	80-120			
Chromium	14.7	2.44	ng/m <sup>3</sup> Air	13.832		107	80-120			
Cobalt	1.36	0.0520	ng/m <sup>3</sup> Air	1.3835		98.2	80-120			

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Inorganics by Compendium Method IO-3.5 - Quality Control**

*Batch B5B2506 - ICP-MS Extraction*

**LCS (B5B2506-BS3) Continued**

Prepared & Analyzed: 02/25/25

Copper	29.5	0.752	ng/m <sup>3</sup> Air	27.686		106	80-120			
Lead	13.8	0.134	ng/m <sup>3</sup> Air	13.833		99.5	80-120			
Manganese	8.84	0.557	ng/m <sup>3</sup> Air	8.2792		107	80-120			
Molybdenum	1.33	0.394	ng/m <sup>3</sup> Air	1.3831		95.9	80-120			
Nickel	2.80	0.739	ng/m <sup>3</sup> Air	2.7667		101	80-120			
Selenium	2.73	0.0101	ng/m <sup>3</sup> Air	2.7661		98.9	80-120			
Thallium	0.134	8.61E-4	ng/m <sup>3</sup> Air	0.13828		96.9	80-120			
Vanadium	2.74	0.0458	ng/m <sup>3</sup> Air	2.7700		98.9	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

**LCS (B5B2506-BS4)**

Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	1.37	0.0350	ng/m <sup>3</sup> Air	1.3835		98.9	80-120			SL
Arsenic	2.73	0.00889	ng/m <sup>3</sup> Air	2.7664		98.7	80-120			
Barium	27.0	1.54	ng/m <sup>3</sup> Air	27.686		97.6	80-120			
Beryllium	1.26	0.00190	ng/m <sup>3</sup> Air	1.3836		91.1	80-120			
Cadmium	1.40	0.00512	ng/m <sup>3</sup> Air	1.3839		101	80-120			
Chromium	14.6	2.44	ng/m <sup>3</sup> Air	13.832		106	80-120			
Cobalt	1.34	0.0520	ng/m <sup>3</sup> Air	1.3835		96.8	80-120			
Copper	29.1	0.752	ng/m <sup>3</sup> Air	27.686		105	80-120			
Lead	13.7	0.134	ng/m <sup>3</sup> Air	13.833		99.1	80-120			
Manganese	8.64	0.557	ng/m <sup>3</sup> Air	8.2792		104	80-120			
Molybdenum	1.34	0.394	ng/m <sup>3</sup> Air	1.3831		97.2	80-120			
Nickel	2.75	0.739	ng/m <sup>3</sup> Air	2.7667		99.5	80-120			
Selenium	2.75	0.0101	ng/m <sup>3</sup> Air	2.7661		99.6	80-120			
Thallium	0.134	8.61E-4	ng/m <sup>3</sup> Air	0.13828		96.9	80-120			
Vanadium	2.74	0.0458	ng/m <sup>3</sup> Air	2.7700		98.8	80-120			
Zinc	ND	114	ng/m <sup>3</sup> Air	82.975			80-120			U

**Duplicate (B5B2506-DUP1)**

**Source: 5022427-12**

Prepared & Analyzed: 02/25/25

Antimony	0.112	0.0274	ng/m <sup>3</sup> Air		0.111		0.649	10	SL
Arsenic	0.257	0.00697	ng/m <sup>3</sup> Air		0.252		2.05	10	
Barium	3.33	1.21	ng/m <sup>3</sup> Air		3.37		1.35	10	
Beryllium	0.00570	0.00149	ng/m <sup>3</sup> Air		0.00567		0.605	10	
Cadmium	0.0509	0.00401	ng/m <sup>3</sup> Air		0.0486		4.64	10	
Chromium	ND	1.91	ng/m <sup>3</sup> Air		ND			10	U
Cobalt	0.155	0.0408	ng/m <sup>3</sup> Air		0.153		1.27	10	
Copper	36.3	0.590	ng/m <sup>3</sup> Air		33.9		6.56	10	
Lead	0.409	0.105	ng/m <sup>3</sup> Air		0.442		7.80	10	
Manganese	5.67	0.437	ng/m <sup>3</sup> Air		5.41		4.79	10	
Molybdenum	1.46	0.309	ng/m <sup>3</sup> Air		1.35		7.76	10	

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B2506 - ICP-MS Extraction

**Duplicate (B5B2506-DUP1) Continued** Source: 5022427-12 Prepared & Analyzed: 02/25/25

Nickel	0.916	0.579	ng/m <sup>3</sup> Air		0.966			5.31	10	
Selenium	0.443	0.00792	ng/m <sup>3</sup> Air		0.468			5.38	10	
Thallium	0.00685	6.75E-4	ng/m <sup>3</sup> Air		0.00679			0.926	10	
Vanadium	0.963	0.0359	ng/m <sup>3</sup> Air		0.931			3.34	10	
Zinc	ND	89.4	ng/m <sup>3</sup> Air		ND				10	U

**Duplicate (B5B2506-DUP2)** Source: 5022427-19 Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.104	0.0289	ng/m <sup>3</sup> Air		0.113			8.76	10	SL
Arsenic	0.146	0.00733	ng/m <sup>3</sup> Air		0.133			9.84	10	
Barium	2.63	1.27	ng/m <sup>3</sup> Air		2.72			3.44	10	
Beryllium	0.00487	0.00157	ng/m <sup>3</sup> Air		0.00500			2.66	10	
Cadmium	0.0186	0.00422	ng/m <sup>3</sup> Air		0.0221			17.2	10	
Chromium	ND	2.01	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	0.142	0.0429	ng/m <sup>3</sup> Air		0.143			1.11	10	
Copper	33.6	0.620	ng/m <sup>3</sup> Air		36.0			6.74	10	
Lead	0.295	0.111	ng/m <sup>3</sup> Air		0.348			16.6	10	
Manganese	5.19	0.459	ng/m <sup>3</sup> Air		5.02			3.36	10	
Molybdenum	1.36	0.325	ng/m <sup>3</sup> Air		1.39			1.94	10	
Nickel	0.735	0.610	ng/m <sup>3</sup> Air		0.705			4.09	10	
Selenium	0.162	0.00833	ng/m <sup>3</sup> Air		0.160			1.26	10	
Thallium	0.00193	7.10E-4	ng/m <sup>3</sup> Air		0.00191			0.853	10	
Vanadium	0.748	0.0378	ng/m <sup>3</sup> Air		0.742			0.678	10	
Zinc	ND	94.0	ng/m <sup>3</sup> Air		ND				10	U

**Duplicate (B5B2506-DUP3)** Source: 5022427-02 Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.447	0.0268	ng/m <sup>3</sup> Air		0.445			0.493	10	SL
Arsenic	0.307	0.00682	ng/m <sup>3</sup> Air		0.310			0.887	10	
Barium	9.90	1.18	ng/m <sup>3</sup> Air		9.89			0.160	10	
Beryllium	0.0175	0.00146	ng/m <sup>3</sup> Air		0.0180			2.82	10	
Cadmium	0.0168	0.00393	ng/m <sup>3</sup> Air		0.0164			2.28	10	
Chromium	2.32	1.87	ng/m <sup>3</sup> Air		2.32			0.173	10	
Cobalt	0.495	0.0399	ng/m <sup>3</sup> Air		0.489			1.17	10	
Copper	57.3	0.577	ng/m <sup>3</sup> Air		57.5			0.325	10	
Lead	0.833	0.103	ng/m <sup>3</sup> Air		0.829			0.475	10	
Manganese	17.1	0.427	ng/m <sup>3</sup> Air		17.0			0.654	10	
Molybdenum	3.13	0.302	ng/m <sup>3</sup> Air		3.13			0.134	10	
Nickel	1.63	0.567	ng/m <sup>3</sup> Air		1.62			0.578	10	
Selenium	0.268	0.00774	ng/m <sup>3</sup> Air		0.275			2.32	10	
Thallium	0.00212	6.60E-4	ng/m <sup>3</sup> Air		0.00221			4.54	10	
Vanadium	2.09	0.0351	ng/m <sup>3</sup> Air		2.07			0.779	10	

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FILE #: 4205.00.003.001  
 REPORTED: 03/04/25 13:23  
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 AQS SITE CODE:  
 SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B2506 - ICP-MS Extraction

**Duplicate (B5B2506-DUP3) Continued** Source: 5022427-02 Prepared: 02/25/25 Analyzed: 02/26/25

Zinc	ND	87.4	ng/m <sup>3</sup> Air	ND				10	U	
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**Duplicate (B5B2506-DUP4)** Source: 5022427-30 Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.0885	0.0281	ng/m <sup>3</sup> Air	0.0897				1.29	10	SL
Arsenic	0.145	0.00714	ng/m <sup>3</sup> Air	0.148				2.07	10	
Barium	3.32	1.24	ng/m <sup>3</sup> Air	3.32				0.0222	10	
Beryllium	0.00451	0.00152	ng/m <sup>3</sup> Air	0.00426				5.68	10	
Cadmium	0.0539	0.00411	ng/m <sup>3</sup> Air	0.0529				1.83	10	
Chromium	ND	1.96	ng/m <sup>3</sup> Air	ND					10	U
Cobalt	0.133	0.0417	ng/m <sup>3</sup> Air	0.133				0.178	10	
Copper	36.2	0.604	ng/m <sup>3</sup> Air	36.2				0.102	10	
Lead	0.358	0.108	ng/m <sup>3</sup> Air	0.357				0.169	10	
Manganese	4.62	0.447	ng/m <sup>3</sup> Air	4.61				0.240	10	
Molybdenum	1.39	0.316	ng/m <sup>3</sup> Air	1.38				0.951	10	
Nickel	0.813	0.593	ng/m <sup>3</sup> Air	0.812				0.117	10	
Selenium	0.178	0.00811	ng/m <sup>3</sup> Air	0.190				6.39	10	
Thallium	8.20E-4	6.91E-4	ng/m <sup>3</sup> Air	8.33E-4				1.61	10	
Vanadium	0.792	0.0368	ng/m <sup>3</sup> Air	0.788				0.533	10	
Zinc	ND	91.5	ng/m <sup>3</sup> Air	ND					10	U

**Matrix Spike (B5B2506-MS1)** Source: 5022427-12 Prepared & Analyzed: 02/25/25

Antimony	0.819	0.0274	ng/m <sup>3</sup> Air	1.0848	0.111	65.2	80-120			SL
Arsenic	2.39	0.00697	ng/m <sup>3</sup> Air	2.1692	0.252	98.4	80-120			
Barium	24.5	1.21	ng/m <sup>3</sup> Air	21.709	3.37	97.3	80-120			
Beryllium	1.08	0.00149	ng/m <sup>3</sup> Air	1.0849	0.00567	98.8	80-120			
Cadmium	1.14	0.00401	ng/m <sup>3</sup> Air	1.0851	0.0486	100	80-120			
Chromium	12.9	1.91	ng/m <sup>3</sup> Air	10.846	ND	119	80-120			
Cobalt	1.21	0.0408	ng/m <sup>3</sup> Air	1.0848	0.153	97.8	80-120			
Copper	55.9	0.590	ng/m <sup>3</sup> Air	21.709	33.9	101	80-120			
Lead	11.3	0.105	ng/m <sup>3</sup> Air	10.847	0.442	100	80-120			
Manganese	12.4	0.437	ng/m <sup>3</sup> Air	6.4919	5.41	108	80-120			
Molybdenum	2.50	0.309	ng/m <sup>3</sup> Air	1.0845	1.35	106	80-120			
Nickel	3.04	0.579	ng/m <sup>3</sup> Air	2.1694	0.966	95.8	80-120			
Selenium	2.58	0.00792	ng/m <sup>3</sup> Air	2.1689	0.468	97.3	80-120			
Thallium	0.112	6.75E-4	ng/m <sup>3</sup> Air	0.10843	0.00679	97.4	80-120			
Vanadium	3.12	0.0359	ng/m <sup>3</sup> Air	2.1720	0.931	101	80-120			
Zinc	ND	89.4	ng/m <sup>3</sup> Air	65.062	ND		80-120			U

**Matrix Spike (B5B2506-MS2)** Source: 5022427-19 Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.854	0.0289	ng/m <sup>3</sup> Air	1.1411	0.113	64.9	80-120			SL
Arsenic	2.39	0.00733	ng/m <sup>3</sup> Air	2.2818	0.133	98.9	80-120			

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B2506 - ICP-MS Extraction

**Matrix Spike (B5B2506-MS2) Continued Source: 5022427-19** Prepared: 02/25/25 Analyzed: 02/26/25

Barium	25.2	1.27	ng/m <sup>3</sup> Air	22.836	2.72	98.6	80-120			
Beryllium	1.12	0.00157	ng/m <sup>3</sup> Air	1.1412	0.00500	98.1	80-120			
Cadmium	1.19	0.00422	ng/m <sup>3</sup> Air	1.1415	0.0221	102	80-120			
Chromium	13.2	2.01	ng/m <sup>3</sup> Air	11.409	ND	115	80-120			
Cobalt	1.25	0.0429	ng/m <sup>3</sup> Air	1.1411	0.143	97.2	80-120			
Copper	60.7	0.620	ng/m <sup>3</sup> Air	22.836	36.0	108	80-120			
Lead	11.9	0.111	ng/m <sup>3</sup> Air	11.410	0.348	101	80-120			
Manganese	12.2	0.459	ng/m <sup>3</sup> Air	6.8289	5.02	105	80-120			
Molybdenum	2.57	0.325	ng/m <sup>3</sup> Air	1.1408	1.39	104	80-120			
Nickel	3.02	0.610	ng/m <sup>3</sup> Air	2.2820	0.705	101	80-120			
Selenium	2.35	0.00833	ng/m <sup>3</sup> Air	2.2816	0.160	96.1	80-120			
Thallium	0.112	7.10E-4	ng/m <sup>3</sup> Air	0.11406	0.00191	96.1	80-120			
Vanadium	3.01	0.0378	ng/m <sup>3</sup> Air	2.2848	0.742	99.4	80-120			
Zinc	96.6	94.0	ng/m <sup>3</sup> Air	68.440	ND	141	80-120			

**Matrix Spike Dup (B5B2506-MSD1) Source: 5022427-12** Prepared & Analyzed: 02/25/25

Antimony	0.844	0.0274	ng/m <sup>3</sup> Air	1.0848	0.111	67.5	80-120	3.02	20	SL
Arsenic	2.40	0.00697	ng/m <sup>3</sup> Air	2.1692	0.252	99.1	80-120	0.686	20	
Barium	24.5	1.21	ng/m <sup>3</sup> Air	21.709	3.37	97.2	80-120	0.127	20	
Beryllium	1.10	0.00149	ng/m <sup>3</sup> Air	1.0849	0.00567	100	80-120	1.68	20	
Cadmium	1.15	0.00401	ng/m <sup>3</sup> Air	1.0851	0.0486	102	80-120	1.29	20	
Chromium	12.8	1.91	ng/m <sup>3</sup> Air	10.846	ND	118	80-120	0.581	20	
Cobalt	1.21	0.0408	ng/m <sup>3</sup> Air	1.0848	0.153	97.7	80-120	0.0463	20	
Copper	55.5	0.590	ng/m <sup>3</sup> Air	21.709	33.9	99.5	80-120	0.669	20	
Lead	11.4	0.105	ng/m <sup>3</sup> Air	10.847	0.442	101	80-120	0.984	20	
Manganese	12.2	0.437	ng/m <sup>3</sup> Air	6.4919	5.41	104	80-120	1.72	20	
Molybdenum	2.47	0.309	ng/m <sup>3</sup> Air	1.0845	1.35	103	80-120	1.13	20	
Nickel	2.97	0.579	ng/m <sup>3</sup> Air	2.1694	0.966	92.2	80-120	2.59	20	
Selenium	2.56	0.00792	ng/m <sup>3</sup> Air	2.1689	0.468	96.5	80-120	0.664	20	
Thallium	0.113	6.75E-4	ng/m <sup>3</sup> Air	0.10843	0.00679	98.1	80-120	0.632	20	
Vanadium	3.08	0.0359	ng/m <sup>3</sup> Air	2.1720	0.931	99.0	80-120	1.18	20	
Zinc	ND	89.4	ng/m <sup>3</sup> Air	65.062	ND		80-120		20	U

**Matrix Spike Dup (B5B2506-MSD2) Source: 5022427-19** Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.858	0.0289	ng/m <sup>3</sup> Air	1.1411	0.113	65.3	80-120	0.462	20	SL
Arsenic	2.39	0.00733	ng/m <sup>3</sup> Air	2.2818	0.133	99.1	80-120	0.166	20	
Barium	25.6	1.27	ng/m <sup>3</sup> Air	22.836	2.72	100	80-120	1.40	20	
Beryllium	1.16	0.00157	ng/m <sup>3</sup> Air	1.1412	0.00500	101	80-120	3.21	20	
Cadmium	1.18	0.00422	ng/m <sup>3</sup> Air	1.1415	0.0221	102	80-120	0.291	20	
Chromium	13.3	2.01	ng/m <sup>3</sup> Air	11.409	ND	117	80-120	1.07	20	

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

Batch B5B2506 - ICP-MS Extraction

**Matrix Spike Dup (B5B2506-MSD2) ContiSource: 5022427-19** Prepared: 02/25/25 Analyzed: 02/26/25

Cobalt	1.25	0.0429	ng/m <sup>3</sup> Air	1.1411	0.143	97.2	80-120	0.0684	20	
Copper	63.2	0.620	ng/m <sup>3</sup> Air	22.836	36.0	119	80-120	4.01	20	
Lead	11.8	0.111	ng/m <sup>3</sup> Air	11.410	0.348	100	80-120	0.462	20	
Manganese	12.2	0.459	ng/m <sup>3</sup> Air	6.8289	5.02	106	80-120	0.666	20	
Molybdenum	2.71	0.325	ng/m <sup>3</sup> Air	1.1408	1.39	116	80-120	5.18	20	
Nickel	2.98	0.610	ng/m <sup>3</sup> Air	2.2820	0.705	99.7	80-120	1.15	20	
Selenium	2.40	0.00833	ng/m <sup>3</sup> Air	2.2816	0.160	98.0	80-120	1.76	20	
Thallium	0.112	7.10E-4	ng/m <sup>3</sup> Air	0.11406	0.00191	96.7	80-120	0.569	20	
Vanadium	2.99	0.0378	ng/m <sup>3</sup> Air	2.2848	0.742	98.3	80-120	0.865	20	
Zinc	97.4	94.0	ng/m <sup>3</sup> Air	68.440	ND	142	80-120	0.838	20	

**Post Spike (B5B2506-PS1) Source: 5022427-12** Prepared & Analyzed: 02/25/25

Antimony	0.329	0.0274	ng/m <sup>3</sup> Air	0.21687	0.111	100	75-125			SL
Arsenic	1.31	0.00697	ng/m <sup>3</sup> Air	1.0844	0.252	97.6	75-125			
Barium	5.46	1.21	ng/m <sup>3</sup> Air	2.1687	3.37	96.2	75-125			
Beryllium	0.225	0.00149	ng/m <sup>3</sup> Air	0.21687	0.00567	101	75-125			
Cadmium	0.161	0.00401	ng/m <sup>3</sup> Air	0.10844	0.0486	104	75-125			
Chromium	2.51	1.91	ng/m <sup>3</sup> Air	1.0844	ND	232	75-125			
Cobalt	0.369	0.0408	ng/m <sup>3</sup> Air	0.21687	0.153	99.7	75-125			
Copper	46.1	0.590	ng/m <sup>3</sup> Air	10.844	33.9	112	75-125			
Lead	22.1	0.105	ng/m <sup>3</sup> Air	21.687	0.442	99.7	75-125			
Manganese	7.69	0.437	ng/m <sup>3</sup> Air	2.1687	5.41	105	75-125			
Molybdenum	2.41	0.309	ng/m <sup>3</sup> Air	1.0844	1.35	98.1	75-125			
Nickel	3.10	0.579	ng/m <sup>3</sup> Air	2.1687	0.966	98.2	75-125			
Selenium	1.49	0.00792	ng/m <sup>3</sup> Air	1.0844	0.468	94.7	75-125			
Thallium	0.0605	6.75E-4	ng/m <sup>3</sup> Air	5.4218E-2	0.00679	99.1	75-125			
Vanadium	2.02	0.0359	ng/m <sup>3</sup> Air	1.0844	0.931	101	75-125			
Zinc	ND	89.4	ng/m <sup>3</sup> Air	21.687	ND		75-125			U

**Post Spike (B5B2506-PS2) Source: 5022427-19** Prepared: 02/25/25 Analyzed: 02/26/25

Antimony	0.343	0.0289	ng/m <sup>3</sup> Air	0.22813	0.113	101	75-125			SL
Arsenic	1.24	0.00733	ng/m <sup>3</sup> Air	1.1407	0.133	97.4	75-125			
Barium	4.90	1.27	ng/m <sup>3</sup> Air	2.2813	2.72	95.6	75-125			
Beryllium	0.240	0.00157	ng/m <sup>3</sup> Air	0.22813	0.00500	103	75-125			
Cadmium	0.139	0.00422	ng/m <sup>3</sup> Air	0.11407	0.0221	102	75-125			
Chromium	2.36	2.01	ng/m <sup>3</sup> Air	1.1407	ND	207	75-125			
Cobalt	0.370	0.0429	ng/m <sup>3</sup> Air	0.22813	0.143	99.2	75-125			
Copper	48.3	0.620	ng/m <sup>3</sup> Air	11.407	36.0	108	75-125			
Lead	23.0	0.111	ng/m <sup>3</sup> Air	22.813	0.348	99.4	75-125			
Manganese	7.38	0.459	ng/m <sup>3</sup> Air	2.2813	5.02	104	75-125			

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Inorganics by Compendium Method IO-3.5 - Quality Control**

*Batch B5B2506 - ICP-MS Extraction*

**Post Spike (B5B2506-PS2) Continued**      **Source: 5022427-19**      Prepared: 02/25/25      Analyzed: 02/26/25

Molybdenum	2.47	0.325	ng/m <sup>3</sup> Air	1.1407	1.39	94.5	75-125			
Nickel	2.95	0.610	ng/m <sup>3</sup> Air	2.2813	0.705	98.3	75-125			
Selenium	1.30	0.00833	ng/m <sup>3</sup> Air	1.1407	0.160	100	75-125			
Thallium	0.0580	7.10E-4	ng/m <sup>3</sup> Air	5.7033E-2	0.00191	98.3	75-125			
Vanadium	1.88	0.0378	ng/m <sup>3</sup> Air	1.1407	0.742	99.6	75-125			
Zinc	ND	94.0	ng/m <sup>3</sup> Air	22.813	ND		75-125			U

**Dilution Check (B5B2506-SRL1)**      **Source: 5022427-12**      Prepared & Analyzed: 02/25/25

Antimony	ND	0.137	ng/m <sup>3</sup> Air		ND				10	SL, U
Arsenic	0.250	0.0349	ng/m <sup>3</sup> Air		0.252			0.690	10	
Barium	ND	6.04	ng/m <sup>3</sup> Air		ND				10	U
Beryllium	ND	0.00745	ng/m <sup>3</sup> Air		ND				10	U
Cadmium	0.0480	0.0201	ng/m <sup>3</sup> Air		0.0486			1.19	10	
Chromium	ND	9.57	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	ND	0.204	ng/m <sup>3</sup> Air		ND				10	U
Copper	34.0	2.95	ng/m <sup>3</sup> Air		33.9			0.178	10	
Lead	ND	0.525	ng/m <sup>3</sup> Air		ND				10	U
Manganese	5.43	2.18	ng/m <sup>3</sup> Air		5.41			0.500	10	
Molybdenum	ND	1.54	ng/m <sup>3</sup> Air		ND				10	U
Nickel	ND	2.90	ng/m <sup>3</sup> Air		ND				10	U
Selenium	0.457	0.0396	ng/m <sup>3</sup> Air		0.468			2.36	10	
Thallium	0.00805	0.00338	ng/m <sup>3</sup> Air		0.00679			17.0	10	
Vanadium	0.930	0.180	ng/m <sup>3</sup> Air		0.931			0.149	10	
Zinc	ND	447	ng/m <sup>3</sup> Air		ND				10	U

**Dilution Check (B5B2506-SRL2)**      **Source: 5022427-19**      Prepared: 02/25/25      Analyzed: 02/26/25

Antimony	ND	0.144	ng/m <sup>3</sup> Air		ND				10	SL, U
Arsenic	0.139	0.0367	ng/m <sup>3</sup> Air		0.133			4.33	10	
Barium	ND	6.35	ng/m <sup>3</sup> Air		ND				10	U
Beryllium	ND	0.00784	ng/m <sup>3</sup> Air		ND				10	U
Cadmium	0.0217	0.0211	ng/m <sup>3</sup> Air		0.0221			2.23	10	
Chromium	ND	10.1	ng/m <sup>3</sup> Air		ND				10	U
Cobalt	ND	0.214	ng/m <sup>3</sup> Air		ND				10	U
Copper	36.0	3.10	ng/m <sup>3</sup> Air		36.0			0.0602	10	
Lead	ND	0.553	ng/m <sup>3</sup> Air		ND				10	U
Manganese	5.05	2.30	ng/m <sup>3</sup> Air		5.02			0.745	10	
Molybdenum	ND	1.62	ng/m <sup>3</sup> Air		ND				10	U
Nickel	ND	3.05	ng/m <sup>3</sup> Air		ND				10	U
Selenium	0.185	0.0417	ng/m <sup>3</sup> Air		0.160			14.4	10	
Thallium	ND	0.00355	ng/m <sup>3</sup> Air		ND				10	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:** 03/04/25 13:23  
**SUBMITTED:** 02/24/25  
**AQS SITE CODE:**  
**SITE CODE:** Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Inorganics by Compendium Method IO-3.5 - Quality Control

*Batch B5B2506 - ICP-MS Extraction*

**Dilution Check (B5B2506-SRL2) ContinueSource: 5022427-19**      Prepared: 02/25/25    Analyzed: 02/26/25

Vanadium	0.739	0.189	ng/m <sup>3</sup> Air		0.742			0.457	10	
Zinc	ND	470	ng/m <sup>3</sup> Air		ND				10	U



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## Notes and Definitions

U Under Detection Limit  
SL The spike recovery was outside acceptance limits. Reported value may be biased low.  
FB-01 Analyte exceeds Field Blank criteria.  
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 03/04/2025 and Shanna Vasser 03/06/2025

Laboratory: Eastern Research Group – Morrisville, NC

Collection date(s): 02/13/2025 – 02/19/2025

Report No: 5022427

- ✓ 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 in MFL-FB01-021925-HM.

Notes: None.