Ambient Community Air Monitoring Weekly Report
For the Hawaii Department of Health – Clean Air Branch

Lahaina, Maui

2/15/2024 – 2/21/2024
[Report Updated: 3/25/2024]

Due to ongoing debris removal operations in response to the Maui Wildfires, a Community Air Monitoring and Sampling Plan (CAMSP) has been drafted and sampling is being performed at four community locations across Lahaina listed below and shown on **Figure 1**:

- Leialii Hawaiian Homelands (AM-01)
- WW Pump Station #4 (AM-02)
- Lahaina Intermediate School (AM-03)
- Lahaina Boys & Girls Club (AM-04)

This approach includes ambient community air monitoring and sampling to monitor conditions and determine whether debris removal activities, managed by the U.S. Army Corps of Engineers (USACE), significantly impact air quality in Lahaina. Data collected is made available to HDOH via online shared site and this weekly report. This approach to air monitoring and sampling will continue until debris removal activities are complete or until HDOH CAB advises otherwise.

Air quality monitoring for particulate matter was collected at all four community locations over a 24-hour period each day in accordance with the draft CAMSP. Additionally, daily air samples were collected at all community locations, as depicted in **Figure 1**. Summary analytical data is presented in **Tables 1 and 2**. **Appendix 1** provides detailed analytical results for all community locations where air sampling was performed. Analytical results were compared to site-specific screening levels for particulate matter, asbestos, and heavy metals as described in the draft CAMSP. A summary of meteorological data is presented in **Table 3.** Overall wind conditions show approximately 1.5 mph in a generally SE direction.

Results for Community Locations:
Ambient air monitoring was performed to assess the presence of airborne particulates with a particle size diameter of 10 micrometers (µm), as this 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_{10}". Monitoring for PM_{10} was conducted 24 hours a day, 7 days a week at each of the following locations: Leialii Hawaiian Homelands (February 15-21), WW Pump Station #4 February 15-21), Lahaina Intermediate School (February 15-21), Lahaina Boys & Girls Club (February 15-21).

The PM_{10} monitoring results were not found to have exceeded the screening level during this reporting period, as shown in **Table 2**.

Please note that ambient air monitoring for fine particulate matter, with a particle size diameter of 2.5 micrometers or less (PM2.5) is not included in this report. This monitoring is being performed by the Department of Health/EPA at six locations in Lahaina and can be viewed at: https://fire.airnow.gov/.

There were 28 samples collected for asbestos fibers at community monitoring locations throughout this reporting period. All asbestos results were below the Site Screening Action Level (SSAL) of 0.0034 fibers/cc and less than the lab's analytical sensitivity (see Table 1). Notably, the laboratory commented "Numerous gypsum fibers present" on samples collected at all monitoring stations from February 15-21. 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. The presence of gypsum fibers found in the samples were not sufficient to obscure asbestos analysis; nor are they indicative of a health and safety concern to the public. Exposure thresholds (NIOSH and OSHA) for

gypsum are 5 mg/m^3 for respirable dust, and 10 mg/m^3 and 15 mg/m^3 respectively for total dust as time-weighted averages. Particulate sampling at these locations indicates these thresholds are not being approached and are orders of magnitude less than applicable gypsum exposure criteria.

Low levels of heavy metals were detected in ambient air samples at all community sampling locations (see Table 1). Although heavy metals were detected, all of the concentrations were below the SSALs (see Table 1). The laboratory data sheets for the metals and asbestos samples collected from the community locations are found in **Appendix 1.**

Quality Control:

This section briefly discusses the quality control efforts made by Tetra Tech throughout the air monitoring and sampling process. All references and SOPs can be found provided with the CAMSP.

Tetra Tech is utilizing Met One Instruments, Inc., environmental beta attenuation mass monitors (E-BAM) to allow for comparison to the National Ambient Air Quality Standards (NAAQS) for particulates. E-BAMs are factory-calibrated annually and do not require daily calibration, except for a leak check and a flow audit, which were performed prior to sampling according to the manufacturer's procedures.

For asbestos sampling, Tetra Tech uses a Casella Vortex 3 or similar air sampling pump. Sampling flow rates will be determined and documented by pre- and post- calibration of each sampling pump using a primary calibration standard. Calibration and sampling are conducted in accordance with Tetra Tech SOPs 064-2, "Calibration of Air Sampling Pump" and 073-3, "Air Quality Monitoring" (Appendix A) and U.S. EPA ERT SOPs No. 2008, "General Air Monitoring and Sampling Guidelines" and 2015 "Asbestos Air Sampling," included in the CAMSP.

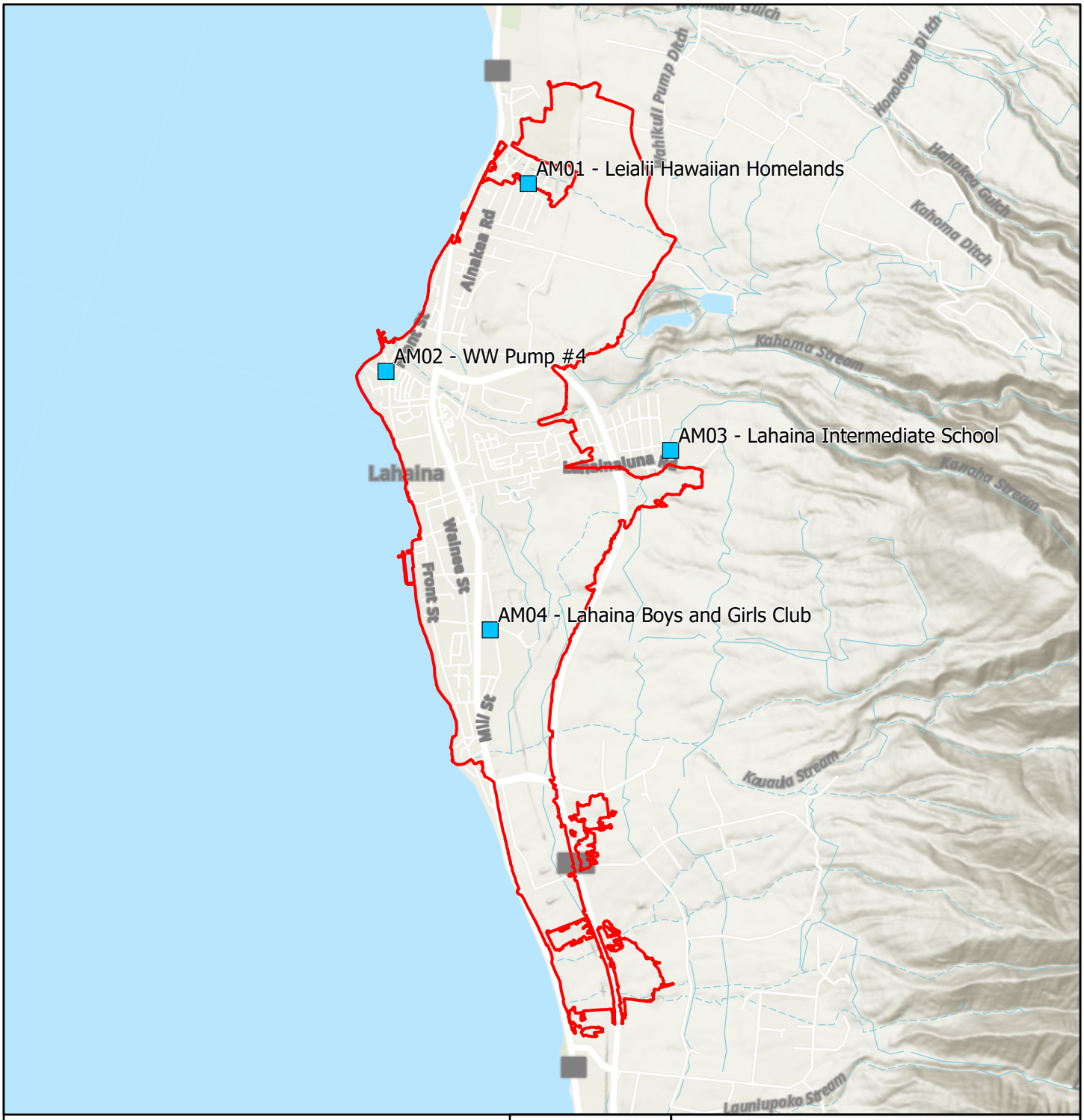
Tetra Tech is using Tisch Environmental High Volume Air Samplers, or equivalent, collocated with the real-time particulate monitors and asbestos samplers described above. Air samples for elemental metals at community locations are collected and analyzed in accordance with the following methods:

- U.S. EPA Compendium Method IO-2.1, Sampling of Ambient Air for Total Suspended Particulate Matter (SPM) and PM10 Using High Volume (HV) Sampler
- U.S. EPA Compendium Method IO-3.5: Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air: Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). EPA/625/R-96/010a
- U.S. EPA 40 Code of Federal Regulations (CFR) Part 50, Method for the Determination of Lead in Total Suspended Particulate Matter.
- U.S. EPA 40 CFR Part 58, Appendix E: Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring
- Standard Operating Procedures for Lead Monitoring Using a 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 the off-site analytical laboratories, analytical data is maintained in an electronic database and compared to the SSALs. Level 1 data verification is completed on all analytical data and results are reviewed by an industrial hygienist.

Attachments



Basemap: ESRI ArcGIS World Street Map

Table 1
HDOH CAB Ambient Community Monitoring and Sampling
Analytical Sampling Results by Date
Maui Wildfire, Lahaina
2/15//2024-2/21/2024
[Report Updated: 3/25/2024]

Analyte		Asbestos	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Manganese	Molybdenum	Nickel	Selenium	Thallium	Vanadium	Zinc
Units		s/cc	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
Screening Level*		0.003 [1]	0.7	0.05	1.2	0.05	0.02	12	0.01	240	1.5	0.12	4.8	0.02	48	24	0.24	1200
2/15/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	0.0000515	0.000802	0.00305	0.00000849	ND	0.00205	0.000242	0.0582	0.000552	0.00779	0.00260	0.000889	0.000143	0.000000905	0.000613	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.0000758	0.000295	0.00277	0.00000506	ND	ND	0.000150	0.0162	0.000700	0.00419	0.000717	0.000655	0.000136	0.000000668	0.000404	ND
	Lahaina Intermediate School (AM-03)	<0.0025	0.0000441	0.000102	0.00209	0.00000757	ND	ND	0.000171	0.0327	0.000246	0.00352	0.00177	0.000568	0.000112	0.000000582	0.000323	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000747	0.000856	0.00396	0.0000133	ND	0.00302	0.000466	0.0412	0.00105	0.0127	0.00180	0.00125	0.000159	0.00000104	0.00101	0.0737
2/16/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	ND	0.000149	0.00259	0.00000515	ND	ND	0.000148	0.0336	0.000742	0.00485	0.00156	ND	0.000175	0.00000156	0.000378	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.000125	0.000518	0.00553	0.0000133	0.000128	0.00322	0.000546	0.0278	0.00144	0.0138	0.00103	0.00262	0.000219	0.00000164	0.00125	ND
	Lahaina Intermediate School (AM-03)	<0.0025	ND	0.0000685	0.00162	0.0000110	ND	0.00213	0.000211	0.0341	0.000419	0.00540	0.00189	0.000876	0.000148	0.00000121	0.000483	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000570	0.000407	0.00416	0.0000203	ND	0.00406	0.000673	0.0125	0.000937	0.0204	0.000566	0.00190	0.000215	0.00000158	0.00155	ND
2/17/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	ND	0.000290	0.00266	0.00000784	ND	0.00221	0.000339	0.0223	0.000343	0.0116	0.00117	0.000629	0.000155	0.000000869	0.000716	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.000145	0.00140	0.0105	0.0000266	0.0000604	0.00426	0.000865	0.0356	0.00348	0.0263	0.000937	0.00234	0.000265	0.00000151	0.00260	0.0714
	Lahaina Intermediate School (AM-03)	<0.0025	0.0000357	0.0000723	0.00171	0.00000996	ND	0.00216	0.000193	0.0353	0.000367	0.00503	0.00195	0.000773	0.000111	0.000000598	0.000469	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000677	0.000248	0.00367	0.00000947	ND	0.00267	0.000326	0.0462	0.00175	0.00921	0.00104	0.00105	0.000145	0.000000773	0.000735	ND
2/18/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	0.0000436	0.000599	0.00701	0.0000143	ND	0.00317	0.000656	0.0264	0.00115	0.0228	0.00119	0.000951	0.000289	0.00000475	0.00140	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.000115	0.00104	0.00906	0.0000176	ND	0.00340	0.000707	0.0296	0.00285	0.0207	0.000880	0.00188	0.000270	0.00000414	0.00181	ND
	Lahaina Intermediate School (AM-03)	<0.0025	ND	0.000198	0.00401	0.00000413	ND	ND	0.0000899	0.0430	0.000758	0.00246	0.00244	ND	0.000169	0.00000351	0.000207	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000710	0.000322	0.00537	0.00000587	ND	0.00211	0.000161	0.0285	0.00132	0.00500	0.00147	0.000600	0.000213	0.00000430	0.000422	ND
2/19/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	0.0000312	0.000411	0.00309	0.00000835	0.0000764	0.00221	0.000297	0.0393	0.000570	0.00964	0.00178	0.000671	0.000178	0.00000170	0.000783	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.0000910	0.000232	0.00527	0.00000653	ND	0.00186	0.000199	0.0213	0.000824	0.00604	0.00101	0.000729	0.000161	0.00000156	0.000562	ND
	Lahaina Intermediate School (AM-03)	<0.0025	0.0000363	0.000155	0.00249	0.00000527	ND	0.00203	0.000146	0.0539	0.000741	0.00339	0.00266	0.000578	0.000152	0.00000142	0.000284	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000458	0.000203	0.00279	0.00000423	ND	ND	0.000128	0.0232	0.000624	0.00382	0.00149	ND	0.000150	0.00000145	0.000314	ND
2/20/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	0.000136	0.00282	0.00802	0.00000480	ND	0.00249	0.000193	0.0500	0.00163	0.00592	0.00204	0.000827	0.000124	0.00000141	0.000626	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.0000996	0.000270	0.00588	0.0000110	ND	0.00247	0.000418	0.0216	0.000790	0.0126	0.000901	0.00130	0.000165	0.00000141	0.00115	ND
	Lahaina Intermediate School (AM-03)	<0.0025	ND	0.000546	0.00256	0.0000146	ND	0.00259	0.000249	0.0485	0.000433	0.00595	0.00257	0.000828	0.000144	0.00000132	0.000641	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000545	0.000210	0.00370	0.00000741	ND	0.00215	0.000235	0.0235	0.000773	0.00632	0.00142	0.000824	0.000145	0.00000132	0.000619	ND
2/21/2024	Leialii Hawaiian Homelands (AM-01)	<0.0025	0.0000374	0.000503	0.00337	0.00000647	ND	0.00203	0.000241	0.0525	0.000576	0.00649	0.00222	0.00105	0.000145	0.00000103	0.000855	ND
	WW Pump Station #4 (AM-02)	<0.0025	0.0000811	0.000236	0.00369	0.00000651	ND	0.00186	0.000202	0.0195	0.000667	0.00546	0.00107	0.000820	0.000155	0.000000981	0.000905	ND
	Lahaina Intermediate School (AM-03)	<0.0025	0.0000636	0.000181	0.00343	0.0000214	ND	0.00251	0.000341	0.0511	0.000526	0.00749	0.00264	0.00127	0.000181	0.00000107	0.00111	ND
	Lahaina Boys & Girls Club (AM-04)	<0.0025	0.0000563	0.000130	0.00298	0.00000522	ND	0.00207	0.000159	0.0211	0.000490	0.00500	0.00140	0.000702	0.000160	0.00000102	0.000886	ND
95% Upper Confidence Limit [2]		NA	0.0000900	0.000670	0.00495	0.0000120	0.000148	0.00279	0.000390	0.0393	0.00119	0.0115	0.00185	0.00125	0.000190	0.00000200	0.00105	0.0800

Notes:

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

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

s/cc = structures per cubic centimeter

ug/m3 = micrograms per cubic meter

NA = Not Applicable

ND = Not detected at or above the laboratory reporting limit

* Laboratory data provided in nanograms per cubic meter, however data shown in Table 1 has been converted to micrograms per cubic meter so data was comparable to SSALs

Table 2
HDOH CAB Ambient Community Monitoring and Sampling
Particulate Monitoring Results for PM_{10}
Maui Wildfire, Lahaina
2/15/2024 - 2/21/2024
[Report Updated: 3/25/2024]

Screening Level		**150 µg/m^3**
2/15/2024	Leialii Hawaiian Homelands (AM-01)	5.5
	WW Pump Station #4 (AM-02)	5.7
	Lahaina Intermediate School (AM-03)	5.1
	Lahaina Boys & Girls Club (AM-04)	5.2
2/16/2024	Leialii Hawaiian Homelands (AM-01)	7.5
	WW Pump Station #4 (AM-02)	9.4
	Lahaina Intermediate School (AM-03)	7.1
	Lahaina Boys & Girls Club (AM-04)	6.3
2/17/2024	Leialii Hawaiian Homelands (AM-01)	7.6
	WW Pump Station #4 (AM-02)	11
	Lahaina Intermediate School (AM-03)	5.6
	Lahaina Boys & Girls Club (AM-04)	6.3
2/18/2024	Leialii Hawaiian Homelands (AM-01)	11
	WW Pump Station #4 (AM-02)	12
	Lahaina Intermediate School (AM-03)	9.1
	Lahaina Boys & Girls Club (AM-04)	10
2/19/2024	Leialii Hawaiian Homelands (AM-01)	7.9
	WW Pump Station #4 (AM-02)	8.7
	Lahaina Intermediate School (AM-03)	6.7
	Lahaina Boys & Girls Club (AM-04)	6.3
2/20/2024	Leialii Hawaiian Homelands (AM-01)	6.2
	WW Pump Station #4 (AM-02)	8.2
	Lahaina Intermediate School (AM-03)	6.7
	Lahaina Boys & Girls Club (AM-04)	6.1
2/21/2024	Leialii Hawaiian Homelands (AM-01)	6.7
	WW Pump Station #4 (AM-02)	8.2
	Lahaina Intermediate School (AM-03)	7.4
	Lahaina Boys & Girls Club (AM-04)	20

Notes:
µg/m3 = micrograms per cubic meter
All Stations on February 18 are based off of a 23 hr TWA calculation
24 hour TWA calculation results are shown in two significant figures
Results are based on 24 hour TWA calculation

Table 3
Maui Wildfire - Lahaina
Meteorological Data
2/15/2024-2/21/2024
[Report Updated: 3/25/2024]

Date	Station ID	Weather Station Name	Wind Speed (mph)	Wind Direction (angle)	Temperature (°F)	Rel Humidity (%)	Baro Pressure (mBar)
2/15/2024	AM-01	Leialii Hawaiian Homelands	1.6	SE	71	77	759.5
2/15/2024	AM-02	WW Pump Station #4	1.7	E	72	76	761.6
2/15/2024	AM-03	Lahaina Intermediate School	2.3	ESE	72	80	752.0
2/15/2024	AM-04	Lahaina Boys & Girls Club	2.7	SSE	74	73	761.0
2/16/2024	AM-01	Leialii Hawaiian Homelands	1.9	SSE	71	65	761.5
2/16/2024	AM-02	WW Pump Station #4	1.9	ESE	72	66	763.6
2/16/2024	AM-03	Lahaina Intermediate School	2.4	SE	73	69	753.9
2/16/2024	AM-04	Lahaina Boys & Girls Club	2.4	S	74	66	763.0
2/17/2024	AM-01	Leialii Hawaiian Homelands	2.4	SE	72	55	763.1
2/17/2024	AM-02	WW Pump Station #4	2.2	E	73	55	765.0
2/17/2024	AM-03	Lahaina Intermediate School	1.7	ESE	73	59	755.3
2/17/2024	AM-04	Lahaina Boys & Girls Club	1.1	S	72	62	764.5
2/18/2024	AM-01	Leialii Hawaiian Homelands	1.6	SE	73	53	764.4
2/18/2024	AM-02	WW Pump Station #4	1.2	SE	73	55	766.5
2/18/2024	AM-03	Lahaina Intermediate School	1.0	ESE	72	58	756.9
2/18/2024	AM-04	Lahaina Boys & Girls Club	1.1	S	72	58	766.0
2/19/2024	AM-01	Leialii Hawaiian Homelands	1.0	SE	73	54	764.3
2/19/2024	AM-02	WW Pump Station #4	1.0	SE	73	57	766.5
2/19/2024	AM-03	Lahaina Intermediate School	1.1	ESE	73	60	756.9
2/19/2024	AM-04	Lahaina Boys & Girls Club	1.1	S	72	60	766.0
2/20/2024	AM-01	Leialii Hawaiian Homelands	0.9	SE	74	53	764.1
2/20/2024	AM-02	WW Pump Station #4	0.9	SSE	75	55	766.3
2/20/2024	AM-03	Lahaina Intermediate School	1.1	SE	75	56	756.7
2/20/2024	AM-04	Lahaina Boys & Girls Club	0.9	S	75	56	765.7
2/21/2024	AM-01	Leialii Hawaiian Homelands	1.1	ESE	75	59	763.6
2/21/2024	AM-02	WW Pump Station #4	1.1	SE	75	61	765.7
2/21/2024	AM-03	Lahaina Intermediate School	1.1	ESE	75	64	756.1
2/21/2024	AM-04	Lahaina Boys & Girls Club	1.1	SSE	76	62	765.1

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-021524-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0001		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7135.2
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0001 **Customer Sample:** MFL-AM01-021524-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	J7	None Detected									
A5	F8	None Detected									
A5	C6	None Detected									
A6	A5	None Detected									
A6	H3	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-021524-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0002		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7174.2
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0002 **Customer Sample:** MFL-AM02-021524-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					
B1	A4	None Detected									
B1	D7	None Detected									
B1	I5	None Detected									
B2	B4	None Detected									
B2	G4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-021524-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0003		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7177.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0003 **Customer Sample:** MFL-AM03-021524-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B5	A4	None Detected									
B5	D4	None Detected									
B5	G4	None Detected									
B6	I5	None Detected									
B6	F4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-021524-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0004		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7146.9
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0004 **Customer Sample:** MFL-AM04-021524-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					
C2	A5	None Detected									
C2	D6	None Detected									
C2	H3	None Detected									
C3	B5	None Detected									
C3	F4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: Maui Fires - Lahaina

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-021524-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0005		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

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

EMSL Order ID: 042403421
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: 042403421-0005 **Customer Sample:** MFL-FB01-021524-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	C4	None Detected									
C5	E2	None Detected									
C5	G3	None Detected									
C5	I5	None Detected									
C6	J6	None Detected									
C6	H5	None Detected									
C6	F7	None Detected									
C6	D5	None Detected									
C6	B4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-021624-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0006		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7213.3
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0006 **Customer Sample:** MFL-AM01-021624-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D1	A10	None Detected									
D1	D7	None Detected									
D1	G3	None Detected									
D2	C3	None Detected									
D2	J4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-021624-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0007		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7206.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	5			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0007 **Customer Sample:** MFL-AM02-021624-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D5	A4	None Detected									
D5	D2	None Detected									
D5	H6	None Detected									
D6	B6	None Detected									
D6	G7	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-021624-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0008		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7191.3
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0008 **Customer Sample:** MFL-AM03-021624-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E1	A8	None Detected									
E1	E9	None Detected									
E1	H7	None Detected									
E2	C7	None Detected									
E2	G4	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-021624-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0009		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7054.3
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	5			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0009**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0009 **Customer Sample:** MFL-AM04-021624-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	J9	None Detected									
E5	H5	None Detected									
E5	B6	None Detected									
E6	B4	None Detected									
E6	H5	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-021624-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0010		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

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

EMSL Order ID:	**042403421**
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: 042403421-0010 **Customer Sample:** MFL-FB01-021624-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	J8	None Detected									
F1	H7	None Detected									
F1	F4	None Detected									
F1	D5	None Detected									
F1	B6	None Detected									
F2	A6	None Detected									
F2	C7	None Detected									
F2	E8	None Detected									
F2	G9	None Detected									
F2	I6	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-021724-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0011		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7264.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0011 **Customer Sample:** MFL-AM01-021724-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	J7	None Detected									
F5	G6	None Detected									
F5	B4	None Detected									
F6	H4	None Detected									
F6	A7	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-021724-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0012		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7198.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	5			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0012 **Customer Sample:** MFL-AM02-021724-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	H3	None Detected									
G1	E7	None Detected									
G1	B4	None Detected									
G2	H4	None Detected									
G2	C6	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-021724-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0013		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7140.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0013 **Customer Sample:** MFL-AM03-021724-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	A5	None Detected									
G5	D8	None Detected									
G5	G8	None Detected									
G6	H3	None Detected									
G6	B7	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-021724-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0014		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7225.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0014 **Customer Sample:** MFL-AM04-021724-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	J6	None Detected									
H1	G3	None Detected									
H1	D6	None Detected									
H2	B7	None Detected									
H2	F8	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-021724-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0015		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

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

EMSL Order ID: 042403421
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: 042403421-0015 **Customer Sample:** MFL-FB01-021724-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	J6	None Detected									
H5	H5	None Detected									
H5	F4	None Detected									
H5	D3	None Detected									
H5	B5	None Detected									
H6	J5	None Detected									
H6	H6	None Detected									
H6	F7	None Detected									
H6	D8	None Detected									
H6	B9	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-021824-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0016		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7159.4
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0016 **Customer Sample:** MFL-AM01-021824-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	I8	None Detected									
I1	F4	None Detected									
I1	C4	None Detected									
I2	I4	None Detected									
I2	B6	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-021824-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0017		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7224.5
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0017 **Customer Sample:** MFL-AM02-021824-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
I5	J6	None Detected									
I5	F7	None Detected									
I5	D9	None Detected									
I6	I8	None Detected									
I6	D9	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-021824-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0018		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7246.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0018 **Customer Sample:** MFL-AM03-021824-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
J1	A4	None Detected									
J1	D6	None Detected									
J1	F7	None Detected									
J2	C5	None Detected									
J2	H7	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-021824-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0019		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7207.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403421
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: 042403421-0019 **Customer Sample:** MFL-AM04-021824-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
J5	J2	None Detected									
J5	G3	None Detected									
J5	F7	None Detected									
J6	I3	None Detected									
J6	B5	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/26/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-021824-AB**		**Sample Description:**	
EMSL Sample Number:	042403421-0020		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 (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0020 **Customer Sample:** MFL-FB01-021824-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	A5	None Detected									
K1	C4	None Detected									
K1	E7	None Detected									
K1	G6	None Detected									
K1	I5	None Detected									
K2	A5	None Detected									
K2	C6	None Detected									
K2	E7	None Detected									
K2	G10	None Detected									
K2	I6	None Detected									

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

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

EMSL Order:	042403421
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/21/2024 09:15 AM
Analysis Date:	02/23/2024
Report Date:	02/27/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**Lab Blank**		**Sample Description:**	**Lab Blank**
EMSL Sample Number:	042403421-0021		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 (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.36	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.36**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

EMSL Order ID: 042403421
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: 042403421-0021 **Customer Sample:** Lab Blank

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
A2	A4	None Detected									
A2	C5	None Detected									
A2	E7	None Detected									
A2	G8	None Detected									
A2	I4	None Detected									
A3	A3	None Detected									
A3	C5	None Detected									
A3	E3	None Detected									
A3	G5	None Detected									
A3	I3	None Detected									

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

OrderID: 042403421

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

EMSL Order Number / Lab Use Only

#042403421

RECEIVED EMSL CINNAMINSON, NJ 24 FEB 21 AM 9:29

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
PHONE (800) 220-3675
E-MAIL CinnAslab@EMSL.com

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

Customer Information

Customer ID:
Company Name: Tetra Tech
Contact Name: Chelsea Seaber
Street Address: 1560 Broadway, Ste. 1400
City, State, Zip: Denver, CO 80202 Country: USA
Phone: 703-489-2674
Email(s) for Report: chelsea.seaber@tetratech.com

Billing Information

Billing ID:
Company Name:
Billing Contact:
Street Address:
City, State, Zip: Country:
Phone:
Email(s) for Invoice:

Project Information

Project Name/No: Maui Fires - Lahaina
Purchase Order:
EMSL LIMS Project ID: (If applicable, EMSL will provide)
US State where samples collected: HI
State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name: Elia Wenger Saldana
Sampled By Signature:
No. of Samples in Shipment 20

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 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☒ ISO 10312*

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

Other Test (please specify)

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

*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-AM01-021524-AIB		7,135.200	02/15/24 1105
MFL-AM02-021524-AIB		7,174.224	02/15/24 1119
MFL-AM03-021524-AIB		7,176.960	02/15/24 1314
MFL-AM04-021524-AIB		7,146.864	02/15/24 1333
MFL-FB01-021524-AIB		0	02/15/24 1200
MFL-AM01-021624-AIB		7,213.278	02/16/24 1103
MFL-AM02-021624-AIB		7,206.056	02/16/24 1123
MFL-AM03-021624-AIB		7,191.263	02/16/24 1307

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

All samples received acceptable for analysis.

20

Method of Shipment: FedEx
Sample Condition Upon Receipt:

Relinquished by:	Date/Time:	Received by:	Date/Time
	02/19/24 1100	FedEX	2/21/24 9:15A
Relinquished by:	Date/Time:	Received by:	Date/Time

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.

OrderID: 042403421

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

#042403421

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

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

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

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

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
MFL-AM04-021624-AB		7,054.276	02/16/24 1326
MFL-FB01-021624-AB		0	02/16/24 1200
MFL-AM01-021724-AB		7,264.070	02/17/24 1101
MFL-AM02-021724-AB		7,198.102	02/17/24 1118
MFL-AM03-021724-AB		7,140.029	02/17/24 1305
MFL-AM04-021724-AB		7,225.087	02/17/24 1327
MFL-FB01-021724-AB		0	02/17/24 1200
MFL-AM01-021824-AB		7,159.392	02/18/24 1104
MFL-AM02-021824-AB		7,224.480	02/18/24 1121
MFL-AM03-021824-AB		7,246.056	02/18/24 1304
MFL-AM04-021824-AB		7,206.987	02/18/24 1324
MFL-FB01-021824-AB		0	02/18/24 1200

RECEIVED
EMSL
CINNAMINSON, NJ
24 FEB 21 AM 9:29

Method of Shipment: Fed Ex		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 02/19/24 1100	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

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 2/29/2024 and Shanna Vasser 3/1/2024
Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ
Collection date(s): 2/15/2024 - 2/18/2024
Report No: 42403421

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

Discrepancies: None.

Notes: None.

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-021924-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0001		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7272.8
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403790
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: 042403790-0001 **Customer Sample:** MFL-AM01-021924-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	J6	None Detected									
A5	H5	None Detected									
A5	E8	None Detected									
A6	B5	None Detected									
A6	G4	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-021924-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0002		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7241.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403790
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: 042403790-0002 **Customer Sample:** MFL-AM02-021924-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B2	B2	None Detected									
B2	E8	None Detected									
B2	H5	None Detected									
B4	A7	None Detected									
B4	G3	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-021924-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0003		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7161.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0003 **Customer Sample:** MFL-AM03-021924-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
B5	A3	None Detected									
B5	D5	None Detected									
B5	H8	None Detected									
B6	C9	None Detected									
B6	I4	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-021924-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0004		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7226.8
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0004 **Customer Sample:** MFL-AM04-021924-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					
C2	A5	None Detected									
C2	E10	None Detected									
C2	I7	None Detected									
C3	B8	None Detected									
C3	H5	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-021924-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0005		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

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

EMSL Order ID: 042403790
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: 042403790-0005 **Customer Sample:** MFL-FB01-021924-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	A6	None Detected									
C5	C7	None Detected									
C5	E8	None Detected									
C5	G6	None Detected									
C5	I4	None Detected									
C6	A2	None Detected									
C6	C3	None Detected									
C6	E4	None Detected									
C6	G3	None Detected									
C6	I4	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-022024-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0006		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7050.5
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403790
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: 042403790-0006 **Customer Sample:** MFL-AM01-022024-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
D2	I6	None Detected									
D2	F8	None Detected									
D2	C7	None Detected									
D3	B6	None Detected									
D3	F8	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-022024-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0007		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7258.6
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected		Density	Concentration	95 % Confidence Interval (S/cc)	
		Primary	Total	(S/mm²)	(S/cc)	Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0007 **Customer Sample:** MFL-AM02-022024-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	A8	None Detected									
D5	E9	None Detected									
D5	H10	None Detected									
D6	D9	None Detected									
D6	G7	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-022024-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0008		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7170.6
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0128
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	2			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.72	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.72**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0008 **Customer Sample:** MFL-AM03-022024-AB

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Additional Mineral ID	Image Number	Structure Comments
			Primary	Total	Length	Width					
E1	A6	None Detected									
E1	D4	None Detected									
E1	I7	None Detected									
E2	C6	None Detected									
E2	G4	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-022024-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0009		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7261.9
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403790
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: 042403790-0009 **Customer Sample:** MFL-AM04-022024-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	A3	None Detected									
E5	D4	None Detected									
E5	G7	None Detected									
E6	B7	None Detected									
E6	G8	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-022024-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0010		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

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

EMSL Order ID: 042403790
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: 042403790-0010 **Customer Sample:** MFL-FB01-022024-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	J2	None Detected									
F1	H3	None Detected									
F1	F4	None Detected									
F1	D6	None Detected									
F1	B8	None Detected									
F2	J8	None Detected									
F2	H7	None Detected									
F2	F3	None Detected									
F2	C6	None Detected									
F2	A5	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM01-022124-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0011		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7156.9
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0011 **Customer Sample:** MFL-AM01-022124-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	A4	None Detected									
F5	F3	None Detected									
F5	J1	None Detected									
F6	J10	None Detected									
F6	F8	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project:

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM02-022124-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0012		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7013.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0009**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0012 **Customer Sample:** MFL-AM02-022124-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					
G2	H6	None Detected									
G2	E4	None Detected									
G2	C2	None Detected									
G3	H2	None Detected									
G3	B3	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM03-022124-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0013		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7128.8
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	3			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.


Approved Signatory

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

EMSL Order ID:	**042403790**
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: 042403790-0013 **Customer Sample:** MFL-AM03-022124-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	A8	None Detected									
G5	D10	None Detected									
G5	I10	None Detected									
G6	I5	None Detected									
G6	A7	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-AM04-022124-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0014		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	7039.1
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	5
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	2			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**0.0008**		**Limit of Detection (Structures/cc):**	**0.0025**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower	Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Actinolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Amosite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Anthophyllite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Crocidolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Tremolite	ADX	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**
Other Minerals	-	0	0	< 46.36	< 0.0025	Not Applicable	- 0.0025
Total All Structures (PCMe)	**-**	**0**	**0**	**< 46.36**	**< 0.0025**	**Not Applicable**	**- 0.0025**

Comment
Numerous gypsum fibers present.

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

EMSL Order ID: 042403790
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: 042403790-0014 **Customer Sample:** MFL-AM04-022124-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	A4	None Detected									
H1	D2	None Detected									
H1	I1	None Detected									
H2	I9	None Detected									
H2	D6	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**MFL-FB01-022124-AB**		**Sample Description:**	
EMSL Sample Number:	042403790-0015		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

EMSL Order ID: 042403790
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: 042403790-0015 **Customer Sample:** MFL-FB01-022124-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	A8	None Detected									
H5	C7	None Detected									
H5	D3	None Detected									
H5	F2	None Detected									
H5	H3	None Detected									
H6	I8	None Detected									
H6	G7	None Detected									
H6	E8	None Detected									
H6	C7	None Detected									
H6	A5	None Detected									

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

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

EMSL Order:	042403790
Customer ID:	TTDC42
Customer PO:	1206126
Project ID:	

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

Project: **Maui Fires - Lahaina**

Phone:	(703) 489-2674
Fax:	
Received Date:	02/26/2024 08:50 AM
Analysis Date:	02/29/2024
Report Date:	03/04/2024

ISO 10312 Determination of Asbestos Fibers
Direct Transfer Transmission Electron Microscopy

Customer Sample Number:	**Lab Blank**		**Sample Description:**	**Lab Blank**
EMSL Sample Number:	042403790-0016		Sample Matrix:	Air
Magnification used for fiber counting:	20,000		Volume (L) :	0.0
Aspect ratio for fiber definition:	3:1		Area of original collection filter (mm²):	385
Minimum Length (µm):	≥ 0.5		Grid Opening Area (mm²):	0.0129
Chi² Test for Random Distribution on Filter:	N/A	*(N/A)*	Grid Openings Analyzed:	10
Minimum Level of analysis (chrysotile):	CD		Analyst:	P. Harrison
Minimum Level of analysis (amphibole):	ADX			
Estimated Particulate Loading on Filter %:	1			
Target Analytical Sensitivity (Structures/cc):	0.001			
Analytical Sensitivity (Structures/cc):	**N/A**		**Limit of Detection (Structures/cc):**	**N/A**

TOTAL STRUCTURES (All Sizes)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration (S/cc)	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

PCM EQUIVALENT (PCMe) STRUCTURES
(>5 microns in length with >3:1 Aspect Ratio)

	Minimum ID Level	Structures Detected Primary	Structures Detected Total	Density (S/mm²)	Concentration S / mm²	95 % Confidence Interval (S/cc) Lower		Upper
Total Chrysotile (PCMe)	**CD**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Total Amphibole (PCMe)	**ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Actinolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Amosite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Anthophyllite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Crocidolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Tremolite	ADX	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total Asbestos Structures (PCMe)	**CD/ADX**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**
Other Minerals	-	0	0	< 23.18	< N/A	Not Applicable	-	Not Applicable
Total All Structures (PCMe)	**-**	**0**	**0**	**< 23.18**	**< N/A**	**Not Applicable**	**-**	**Not Applicable**

Comment

Approved Signatory

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

EMSL Order ID:	**042403790**
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: 042403790-0016 **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	E10	None Detected									
A1	D8	None Detected									
A1	C5	None Detected									
A1	B3	None Detected									
A1	A5	None Detected									
A2	J5	None Detected									
A2	F4	None Detected									
A2	E7	None Detected									
A2	C7	None Detected									
A3	B4	None Detected									

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

OrderID: 042403790

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

#042403790

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
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		Billing Information	
Customer ID:		Billing ID:	
Company Name:	TetraTech	Company Name:	
Contact Name:	Chelsea Suber	Billing Contact:	
Street Address:	1560 Broadway, Ste 1400	Street Address:	
City, State, Zip:	Denver, CO 80202	City, State, Zip:	
Country:	USA	Country:	
Phone:	703-489-2674	Phone:	
Email(s) for Report:	chelsea.suber@tetratech.com	Email(s) for Invoice:	

Project Information

Project Name/No:	Maui Fires - Lenheimer	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	HI
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)		
Sampled By Name:	Elsa Georgia Saldaña	Sampled By Signature:	
No. of Samples in Shipment	15		

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 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☒ ISO 10312*

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

Other Test (please specify)

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

*Please call with your project-specific requirements.

RECEIVED EMSL CINNAMINSON, NJ FEB 26 AM 10:34

☐ 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-AM01-021924-AB		7,272.818	02/19/24 1103
MFL-AM02-021924-AB		7,241.092	02/19/24 1121
MFL-AM03-021924-AB		7,161.081	02/19/24 1303
MFL-AM04-021924-AB		7,226.813	02/19/24 1325
MFL-FB01-021924-AB		0	02/19/24 1200
MFL-AM01-022024-AB		7,050.528	02/20/24 1108
MFL-AM02-022024-AB		7,258.608	02/20/24 1125
MFL-AM03-022024-AB		7,170.624	02/20/24 1305

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

All samples received acceptable for analysis.

Method of Shipment:	FedEx	Sample Condition Upon Receipt:	
Relinquished by:		Date/Time: 02/22/24 1100	Received by: FX
Relinquished by:		Date/Time:	Received by:

Date/Time: 2/26/24 850a

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.

OrderID: 042403790

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

#042403790

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

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

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

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

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
MFL-AM04-022024-AB		7,261.920	02/20/24 1327
MFL-FB01-022024-AB		0	02/20/24 1200
MFL-AM01-022124-AB		7,156.920	02/21/24 1101
MFL-AM02-022124-AB		7,013.093	02/21/24 1129
MFL-AM03-022124-AB		7,128.826	02/21/24 1302
MFL-AM04-022124-AB		7,039.080	02/21/24 1331
MFL-FB01-022124-AB		0	02/21/24 1200

RECEIVED
EMSL
CINNAMINSON, NJ
2024 FEB 26 A 10:35

Method of Shipment: FedEx		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 02/22/24 1100	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

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 3/5/2024 and Shanna Vasser 3/6/2024
Laboratory: EMSL Analytical, Inc. – North Cinnaminson, NJ
Collection date(s): 2/19/2024 - 2/21/2024
Report No: 42403790

√	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 05, 2024

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

Dear Ms. Chelsea Saber,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 02/26/24 14:05.

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

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

ANALYTICAL REPORT FOR SAMPLES

SampleName	LabNumber	Matrix	Sampled	Received
MFL-AM01-021524-HM	4022628-01	Air	02/15/24 23:59	02/26/24 14:05
MFL-AM02-021524-HM	4022628-02	Air	02/15/24 23:59	02/26/24 14:05
MFL-AM03-021524-HM	4022628-03	Air	02/15/24 23:59	02/26/24 14:05
MFL-AM04-021524-HM	4022628-04	Air	02/15/24 23:59	02/26/24 14:05
MFL-FB01-021524-HM	4022628-05	Air	02/15/24 00:00	02/26/24 14:05
MFL-AM01-021624-HM	4022628-06	Air	02/16/24 23:59	02/26/24 14:05
MFL-AM02-021624-HM	4022628-07	Air	02/16/24 23:59	02/26/24 14:05
MFL-AM03-021624-HM	4022628-08	Air	02/16/24 23:59	02/26/24 14:05
MFL-AM04-021624-HM	4022628-09	Air	02/16/24 23:59	02/26/24 14:05
MFL-AM01-021724-HM	4022628-10	Air	02/17/24 23:59	02/26/24 14:05
MFL-AM02-021724-HM	4022628-11	Air	02/17/24 23:59	02/26/24 14:05
MFL-AM03-021724-HM	4022628-12	Air	02/17/24 23:59	02/26/24 14:05
MFL-AM04-021724-HM	4022628-13	Air	02/17/24 23:59	02/26/24 14:05
MFL-FB01-021724-HM	4022628-14	Air	02/17/24 00:00	02/26/24 14:05
MFL-AM01-021824-HM	4022628-15	Air	02/18/24 23:59	02/26/24 14:05
MFL-AM02-021824-HM	4022628-16	Air	02/18/24 23:59	02/26/24 14:05
MFL-AM03-021824-HM	4022628-17	Air	02/18/24 23:59	02/26/24 14:05
MFL-AM04-021824-HM	4022628-18	Air	02/18/24 23:59	02/26/24 14:05
MFL-AM01-021924-HM/MS/I	4022628-19	Air	02/19/24 23:59	02/26/24 14:05
MFL-AM02-021924-HM	4022628-20	Air	02/19/24 23:59	02/26/24 14:05
MFL-AM03-021924-HM	4022628-21	Air	02/19/24 23:59	02/26/24 14:05

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

MFL-AM04-021924-HM	4022628-22	Air	02/19/24 23:59	02/26/24 14:05
MFL-FB01-021924-HM	4022628-23	Air	02/19/24 00:00	02/26/24 14:05
MFL-AM01-022024-HM	4022628-24	Air	02/20/24 23:59	02/26/24 14:05
MFL-AM02-022024-HM	4022628-25	Air	02/20/24 23:59	02/26/24 14:05
MFL-AM03-022024-HM	4022628-26	Air	02/20/24 23:59	02/26/24 14:05
MFL-AM04-022024-HM	4022628-27	Air	02/20/24 23:59	02/26/24 14:05
MFL-AM01-022124-HM	4022628-28	Air	02/21/24 23:59	02/26/24 14:05
MFL-AM02-022124-HM	4022628-29	Air	02/21/24 23:59	02/26/24 14:05
MFL-AM03-022124-HM	4022628-30	Air	02/21/24 23:59	02/26/24 14:05
MFL-AM04-022124-HM	4022628-31	Air	02/21/24 23:59	02/26/24 14:05
MFL-FB01-022124-HM	4022628-32	Air	02/21/24 00:00	02/26/24 14:05

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-021524-HM
Matrix: Air
Lab ID: 4022628-01
Sample Volume: 2007.2 m³
Filter ID:
Sampled: 02/15/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 00:26

Comments: Q9554699 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0515**	SL	**0.0313**
Arsenic	**7440-38-2**	**0.802**		**0.00760**
Barium	**7440-39-3**	**3.05**	QB-01	**0.867**
Beryllium	**7440-41-7**	**0.00849**	GC-BS	**0.00259**
Cadmium	7440-43-9	0.0133	U	0.0601
Chromium	**7440-47-3**	**2.05**		**1.79**
Cobalt	**7440-48-4**	**0.242**		**0.0353**
Copper	**7440-50-8**	**58.2**		**2.13**
Lead	**7439-92-1**	**0.552**		**0.173**
Manganese	**7439-96-5**	**7.79**		**1.53**
Molybdenum	**7439-98-7**	**2.60**		**0.291**
Nickel	**7440-02-0**	**0.889**		**0.528**
Selenium	**7782-49-2**	**0.143**		**0.00726**
Thallium	**7440-28-0**	**9.05E-4**		**4.77E-4**
Vanadium	**7440-62-2**	**0.613**		**0.0429**
Zinc	7440-66-6	37.3	U	62.3

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-021524-HM
Matrix: Air
Lab ID: 4022628-02
Sample Volume: 2113.46 m³
Filter ID:
Sampled: 02/15/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 00:43

Comments: Q9554698 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0758**	SL	**0.0297**
Arsenic	**7440-38-2**	**0.295**		**0.00721**
Barium	**7440-39-3**	**2.77**	QB-01	**0.824**
Beryllium	**7440-41-7**	**0.00506**	GC-BS	**0.00246**
Cadmium	7440-43-9	0.0184	U	0.0570
Chromium	7440-47-3	1.61	U	1.70
Cobalt	**7440-48-4**	**0.150**		**0.0336**
Copper	**7440-50-8**	**16.2**		**2.02**
Lead	**7439-92-1**	**0.700**		**0.165**
Manganese	**7439-96-5**	**4.19**		**1.45**
Molybdenum	**7439-98-7**	**0.717**		**0.276**
Nickel	**7440-02-0**	**0.655**		**0.502**
Selenium	**7782-49-2**	**0.136**		**0.00690**
Thallium	**7440-28-0**	**6.68E-4**		**4.53E-4**
Vanadium	**7440-62-2**	**0.404**		**0.0407**
Zinc	7440-66-6	33.0	U	59.1

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-021524-HM
Matrix: Air
Lab ID: 4022628-03
Sample Volume: 1936.133 m³
Filter ID:
Sampled: 02/15/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 01:15

Comments: Q9554697 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0441**	SL	**0.0324**
Arsenic	**7440-38-2**	**0.102**		**0.00787**
Barium	**7440-39-3**	**2.09**	QB-01	**0.899**
Beryllium	**7440-41-7**	**0.00757**	GC-BS	**0.00269**
Cadmium	7440-43-9	0.00626	U	0.0623
Chromium	7440-47-3	1.66	U	1.86
Cobalt	**7440-48-4**	**0.171**		**0.0366**
Copper	**7440-50-8**	**32.7**		**2.21**
Lead	**7439-92-1**	**0.246**		**0.180**
Manganese	**7439-96-5**	**3.52**		**1.59**
Molybdenum	**7439-98-7**	**1.77**		**0.302**
Nickel	**7440-02-0**	**0.568**		**0.548**
Selenium	**7782-49-2**	**0.112**		**0.00753**
Thallium	**7440-28-0**	**5.82E-4**		**4.95E-4**
Vanadium	**7440-62-2**	**0.323**		**0.0445**
Zinc	7440-66-6	33.8	U	64.5

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-021524-HM
Matrix: Air
Lab ID: 4022628-04
Sample Volume: 1908.774 m³
Filter ID:
Sampled: 02/15/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 01:30

Comments: Q9554693 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0747**	SL	**0.0329**
Arsenic	**7440-38-2**	**0.856**		**0.00799**
Barium	**7440-39-3**	**3.96**	QB-01	**0.912**
Beryllium	**7440-41-7**	**0.0133**	GC-BS	**0.00273**
Cadmium	7440-43-9	0.0217	U	0.0632
Chromium	**7440-47-3**	**3.02**		**1.88**
Cobalt	**7440-48-4**	**0.466**		**0.0372**
Copper	**7440-50-8**	**41.2**		**2.24**
Lead	**7439-92-1**	**1.05**		**0.182**
Manganese	**7439-96-5**	**12.7**		**1.61**
Molybdenum	**7439-98-7**	**1.80**		**0.306**
Nickel	**7440-02-0**	**1.25**		**0.556**
Selenium	**7782-49-2**	**0.159**		**0.00764**
Thallium	**7440-28-0**	**0.00104**		**5.02E-4**
Vanadium	**7440-62-2**	**1.01**		**0.0451**
Zinc	**7440-66-6**	**73.7**		**65.5**

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-FB01-021524-HM
Matrix: Air
Lab ID: 4022628-05
Sample Volume: 2007.2 m³
Filter ID:
Sampled: 02/15/24 00:00
Received: 02/26/24 14:05
Analysis Date: 02/29/24 01:46

Comments: Q9545060 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0105	SL, U	0.0313
Arsenic	**7440-38-2**	**0.00893**	FB-01	**0.00760**
Barium	7440-39-3	0.712	QB-01, U	0.867
Beryllium	7440-41-7	0.00108	GC-BS, U	0.00259
Cadmium	7440-43-9	0.00398	U	0.0601
Chromium	7440-47-3	1.32	U	1.79
Cobalt	7440-48-4	0.0312	U	0.0353
Copper	**7440-50-8**	**3.01**	FB-01	**2.13**
Lead	7439-92-1	0.152	U	0.173
Manganese	7439-96-5	0.226	U	1.53
Molybdenum	7439-98-7	0.266	U	0.291
Nickel	7440-02-0	0.354	U	0.528
Selenium	7782-49-2	0.00382	U	0.00726
Thallium	7440-28-0	1.76E-4	U	4.77E-4
Vanadium	7440-62-2	0.0157	U	0.0429
Zinc	7440-66-6	26.7	U	62.3

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-021624-HM
Matrix: Air
Lab ID: 4022628-06
Sample Volume: 2024.955 m³
Filter ID:
Sampled: 02/16/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 02:01

Comments: Q9554692 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0242	SL, U	0.0310
Arsenic	**7440-38-2**	**0.149**		**0.00753**
Barium	**7440-39-3**	**2.59**	QB-01	**0.860**
Beryllium	**7440-41-7**	**0.00515**	GC-BS	**0.00257**
Cadmium	7440-43-9	0.0127	U	0.0595
Chromium	7440-47-3	1.73	U	1.78
Cobalt	**7440-48-4**	**0.148**		**0.0350**
Copper	**7440-50-8**	**33.6**		**2.11**
Lead	**7439-92-1**	**0.742**		**0.172**
Manganese	**7439-96-5**	**4.85**		**1.52**
Molybdenum	**7439-98-7**	**1.56**		**0.288**
Nickel	7440-02-0	0.509	U	0.524
Selenium	**7782-49-2**	**0.175**		**0.00720**
Thallium	**7440-28-0**	**0.00156**		**4.73E-4**
Vanadium	**7440-62-2**	**0.378**		**0.0425**
Zinc	7440-66-6	41.8	U	61.7

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-021624-HM
Matrix: Air
Lab ID: 4022628-07
Sample Volume: 2119.127 m³
Filter ID:
Sampled: 02/16/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 02:15

Comments: Q9554691 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.125**	SL	**0.0296**
Arsenic	**7440-38-2**	**0.518**		**0.00719**
Barium	**7440-39-3**	**5.53**	QB-01	**0.822**
Beryllium	**7440-41-7**	**0.0133**	GC-BS	**0.00246**
Cadmium	**7440-43-9**	**0.128**		**0.0569**
Chromium	**7440-47-3**	**3.22**		**1.70**
Cobalt	**7440-48-4**	**0.546**		**0.0335**
Copper	**7440-50-8**	**27.8**		**2.02**
Lead	**7439-92-1**	**1.44**		**0.164**
Manganese	**7439-96-5**	**13.8**		**1.45**
Molybdenum	**7439-98-7**	**1.03**		**0.276**
Nickel	**7440-02-0**	**2.62**		**0.501**
Selenium	**7782-49-2**	**0.219**		**0.00688**
Thallium	**7440-28-0**	**0.00164**		**4.52E-4**
Vanadium	**7440-62-2**	**1.25**		**0.0406**
Zinc	7440-66-6	54.6	U	59.0

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-021624-HM
Matrix: Air
Lab ID: 4022628-08
Sample Volume: 1903.904 m³
Filter ID:
Sampled: 02/16/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/28/24 22:02

Comments: Q9545059 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0178	SL, U	0.0330
Arsenic	**7440-38-2**	**0.0685**	D-F	**0.00801**
Barium	**7440-39-3**	**1.62**	QB-01	**0.914**
Beryllium	**7440-41-7**	**0.0110**	GC-BS	**0.00273**
Cadmium	7440-43-9	0.0140	U	0.0633
Chromium	**7440-47-3**	**2.13**		**1.89**
Cobalt	**7440-48-4**	**0.211**		**0.0373**
Copper	**7440-50-8**	**34.1**	QM-07	**2.25**
Lead	**7439-92-1**	**0.419**		**0.183**
Manganese	**7439-96-5**	**5.40**		**1.62**
Molybdenum	**7439-98-7**	**1.89**	QM-07	**0.307**
Nickel	**7440-02-0**	**0.876**		**0.557**
Selenium	**7782-49-2**	**0.148**		**0.00766**
Thallium	**7440-28-0**	**0.00121**		**5.03E-4**
Vanadium	**7440-62-2**	**0.483**		**0.0452**
Zinc	7440-66-6	48.1	QM-07, U	65.6

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-021624-HM
Matrix: Air
Lab ID: 4022628-09
Sample Volume: 1876.247 m³
Filter ID:
Sampled: 02/16/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 02:32

Comments: Q9545058 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0570**	SL	**0.0335**
Arsenic	**7440-38-2**	**0.407**		**0.00813**
Barium	**7440-39-3**	**4.16**	QB-01	**0.928**
Beryllium	**7440-41-7**	**0.0203**	GC-BS	**0.00277**
Cadmium	7440-43-9	0.0354	U	0.0643
Chromium	**7440-47-3**	**4.06**		**1.92**
Cobalt	**7440-48-4**	**0.673**		**0.0378**
Copper	**7440-50-8**	**12.5**		**2.28**
Lead	**7439-92-1**	**0.937**		**0.186**
Manganese	**7439-96-5**	**20.4**		**1.64**
Molybdenum	**7439-98-7**	**0.566**		**0.311**
Nickel	**7440-02-0**	**1.90**		**0.565**
Selenium	**7782-49-2**	**0.215**		**0.00777**
Thallium	**7440-28-0**	**0.00158**		**5.11E-4**
Vanadium	**7440-62-2**	**1.55**		**0.0459**
Zinc	7440-66-6	39.0	U	66.6

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-021724-HM
Matrix: Air
Lab ID: 4022628-10
Sample Volume: 2040.19 m³
Filter ID:
Sampled: 02/17/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 02:48

Comments: Q9545057 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0219	SL, U	0.0308
Arsenic	**7440-38-2**	**0.290**		**0.00747**
Barium	**7440-39-3**	**2.66**	QB-01	**0.853**
Beryllium	**7440-41-7**	**0.00784**	GC-BS	**0.00255**
Cadmium	7440-43-9	0.0151	U	0.0591
Chromium	**7440-47-3**	**2.21**		**1.76**
Cobalt	**7440-48-4**	**0.339**		**0.0348**
Copper	**7440-50-8**	**22.3**		**2.10**
Lead	**7439-92-1**	**0.343**		**0.171**
Manganese	**7439-96-5**	**11.6**		**1.51**
Molybdenum	**7439-98-7**	**1.17**		**0.286**
Nickel	**7440-02-0**	**0.629**		**0.520**
Selenium	**7782-49-2**	**0.155**		**0.00715**
Thallium	**7440-28-0**	**8.69E-4**		**4.70E-4**
Vanadium	**7440-62-2**	**0.716**		**0.0422**
Zinc	7440-66-6	26.7	U	61.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-021724-HM
Matrix: Air
Lab ID: 4022628-11
Sample Volume: 2121.801 m³
Filter ID:
Sampled: 02/17/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 03:57

Comments: Q9545054 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.145	SL	0.0296
Arsenic	7440-38-2	1.40		0.00718
Barium	7440-39-3	10.5	QB-01	0.820
Beryllium	7440-41-7	0.0266	GC-BS	0.00245
Cadmium	7440-43-9	0.0604		0.0568
Chromium	7440-47-3	4.26		1.69
Cobalt	7440-48-4	0.865		0.0334
Copper	7440-50-8	35.6		2.02
Lead	7439-92-1	3.48		0.164
Manganese	7439-96-5	26.3		1.45
Molybdenum	7439-98-7	0.937		0.275
Nickel	7440-02-0	2.34		0.500
Selenium	7782-49-2	0.265		0.00687
Thallium	7440-28-0	0.00151		4.52E-4
Vanadium	7440-62-2	2.60		0.0406
Zinc	7440-66-6	71.4		58.9

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-021724-HM
Matrix: Air
Lab ID: 4022628-12
Sample Volume: 1967.69 m³
Filter ID:
Sampled: 02/17/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 04:17

Comments: Q9545053 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0357**	SL	**0.0319**
Arsenic	**7440-38-2**	**0.0723**		**0.00775**
Barium	**7440-39-3**	**1.71**	QB-01	**0.885**
Beryllium	**7440-41-7**	**0.00996**	GC-BS	**0.00265**
Cadmium	7440-43-9	0.00939	U	0.0613
Chromium	**7440-47-3**	**2.16**		**1.83**
Cobalt	**7440-48-4**	**0.193**		**0.0361**
Copper	**7440-50-8**	**35.3**		**2.17**
Lead	**7439-92-1**	**0.367**		**0.177**
Manganese	**7439-96-5**	**5.03**		**1.56**
Molybdenum	**7439-98-7**	**1.95**		**0.297**
Nickel	**7440-02-0**	**0.773**		**0.539**
Selenium	**7782-49-2**	**0.111**		**0.00741**
Thallium	**7440-28-0**	**5.98E-4**		**4.87E-4**
Vanadium	**7440-62-2**	**0.469**		**0.0437**
Zinc	7440-66-6	31.4	U	63.5

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-021724-HM
Matrix: Air
Lab ID: 4022628-13
Sample Volume: 1896.081 m³
Filter ID:
Sampled: 02/17/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 04:33

Comments: Q9545052 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0677**	SL	**0.0331**
Arsenic	**7440-38-2**	**0.248**		**0.00804**
Barium	**7440-39-3**	**3.67**	QB-01	**0.918**
Beryllium	**7440-41-7**	**0.00947**	GC-BS	**0.00275**
Cadmium	7440-43-9	0.0422	U	0.0636
Chromium	**7440-47-3**	**2.67**		**1.90**
Cobalt	**7440-48-4**	**0.326**		**0.0374**
Copper	**7440-50-8**	**46.2**		**2.26**
Lead	**7439-92-1**	**1.75**		**0.184**
Manganese	**7439-96-5**	**9.21**		**1.62**
Molybdenum	**7439-98-7**	**1.04**		**0.308**
Nickel	**7440-02-0**	**1.05**		**0.559**
Selenium	**7782-49-2**	**0.145**		**0.00769**
Thallium	**7440-28-0**	**7.73E-4**		**5.05E-4**
Vanadium	**7440-62-2**	**0.735**		**0.0454**
Zinc	7440-66-6	54.2	U	65.9

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-FB01-021724-HM
Matrix: Air
Lab ID: 4022628-14
Sample Volume: 2040.19 m³
Filter ID:
Sampled: 02/17/24 00:00
Received: 02/26/24 14:05
Analysis Date: 02/29/24 04:51

Comments: Q9545048 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.00682	SL, U	0.0308
Arsenic	7440-38-2	0.00664	U	0.00747
Barium	7440-39-3	0.549	QB-01, U	0.853
Beryllium	7440-41-7	9.63E-4	GC-BS, U	0.00255
Cadmium	7440-43-9	0.00439	U	0.0591
Chromium	7440-47-3	1.20	U	1.76
Cobalt	7440-48-4	0.0217	U	0.0348
Copper	**7440-50-8**	**3.10**	FB-01	**2.10**
Lead	7439-92-1	0.168	U	0.171
Manganese	7439-96-5	0.263	U	1.51
Molybdenum	7439-98-7	0.224	U	0.286
Nickel	7440-02-0	0.241	U	0.520
Selenium	7782-49-2	0.00555	U	0.00715
Thallium	7440-28-0	1.22E-4	U	4.70E-4
Vanadium	7440-62-2	0.0100	U	0.0422
Zinc	7440-66-6	19.1	U	61.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-021824-HM
Matrix: Air
Lab ID: 4022628-15
Sample Volume: 2058.057 m³
Filter ID:
Sampled: 02/18/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 05:06

Comments: Q9545051 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0436**	SL	**0.0305**
Arsenic	**7440-38-2**	**0.599**		**0.00741**
Barium	**7440-39-3**	**7.01**	QB-01	**0.846**
Beryllium	**7440-41-7**	**0.0143**	GC-BS	**0.00253**
Cadmium	7440-43-9	0.0425	U	0.0586
Chromium	**7440-47-3**	**3.17**		**1.75**
Cobalt	**7440-48-4**	**0.656**		**0.0345**
Copper	**7440-50-8**	**26.4**		**2.08**
Lead	**7439-92-1**	**1.15**		**0.169**
Manganese	**7439-96-5**	**22.8**		**1.49**
Molybdenum	**7439-98-7**	**1.19**		**0.284**
Nickel	**7440-02-0**	**0.951**		**0.515**
Selenium	**7782-49-2**	**0.289**		**0.00708**
Thallium	**7440-28-0**	**0.00475**		**4.66E-4**
Vanadium	**7440-62-2**	**1.40**		**0.0418**
Zinc	7440-66-6	33.2	U	60.7

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-021824-HM
Matrix: Air
Lab ID: 4022628-16
Sample Volume: 2136.957 m³
Filter ID:
Sampled: 02/18/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 05:22

Comments: Q9545049 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.115**	SL	**0.0294**
Arsenic	**7440-38-2**	**1.04**		**0.00713**
Barium	**7440-39-3**	**9.06**	QB-01	**0.815**
Beryllium	**7440-41-7**	**0.0176**	GC-BS	**0.00244**
Cadmium	7440-43-9	0.0531	U	0.0564
Chromium	**7440-47-3**	**3.40**		**1.68**
Cobalt	**7440-48-4**	**0.707**		**0.0332**
Copper	**7440-50-8**	**29.6**		**2.00**
Lead	**7439-92-1**	**2.85**		**0.163**
Manganese	**7439-96-5**	**20.7**		**1.44**
Molybdenum	**7439-98-7**	**0.880**		**0.273**
Nickel	**7440-02-0**	**1.88**		**0.496**
Selenium	**7782-49-2**	**0.270**		**0.00682**
Thallium	**7440-28-0**	**0.00414**		**4.48E-4**
Vanadium	**7440-62-2**	**1.81**		**0.0403**
Zinc	7440-66-6	53.0	U	58.5

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-021824-HM
Matrix: Air
Lab ID: 4022628-17
Sample Volume: 1916.795 m³
Filter ID:
Sampled: 02/18/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 05:38

Comments: Q9545045 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0323	SL, U	0.0328
Arsenic	**7440-38-2**	**0.198**		**0.00795**
Barium	**7440-39-3**	**4.01**	QB-01	**0.908**
Beryllium	**7440-41-7**	**0.00413**	GC-BS	**0.00272**
Cadmium	7440-43-9	0.0295	U	0.0629
Chromium	7440-47-3	1.55	U	1.88
Cobalt	**7440-48-4**	**0.0899**		**0.0370**
Copper	**7440-50-8**	**43.0**		**2.23**
Lead	**7439-92-1**	**0.758**		**0.182**
Manganese	**7439-96-5**	**2.46**		**1.60**
Molybdenum	**7439-98-7**	**2.44**		**0.305**
Nickel	7440-02-0	0.446	U	0.553
Selenium	**7782-49-2**	**0.169**		**0.00761**
Thallium	**7440-28-0**	**0.00351**		**5.00E-4**
Vanadium	**7440-62-2**	**0.207**		**0.0449**
Zinc	7440-66-6	20.9	U	65.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-021824-HM
Matrix: Air
Lab ID: 4022628-18
Sample Volume: 1886.561 m³
Filter ID:
Sampled: 02/18/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 05:54

Comments: Q9545044 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0710**	SL	**0.0333**
Arsenic	**7440-38-2**	**0.322**		**0.00808**
Barium	**7440-39-3**	**5.37**	QB-01	**0.923**
Beryllium	**7440-41-7**	**0.00587**	GC-BS	**0.00276**
Cadmium	7440-43-9	0.0340	U	0.0639
Chromium	**7440-47-3**	**2.11**		**1.91**
Cobalt	**7440-48-4**	**0.161**		**0.0376**
Copper	**7440-50-8**	**28.5**		**2.27**
Lead	**7439-92-1**	**1.32**		**0.185**
Manganese	**7439-96-5**	**5.00**		**1.63**
Molybdenum	**7439-98-7**	**1.47**		**0.310**
Nickel	**7440-02-0**	**0.600**		**0.562**
Selenium	**7782-49-2**	**0.213**		**0.00773**
Thallium	**7440-28-0**	**0.00430**		**5.08E-4**
Vanadium	**7440-62-2**	**0.422**		**0.0456**
Zinc	7440-66-6	36.0	U	66.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-021924-HM/MS/MS **Lab ID:** 4022628-19 **Sampled:** 02/19/24 23:59
Matrix: Air **Sample Volume:** 2046.027 m³ **Received:** 02/26/24 14:05
Filter ID: **Analysis Date:** 02/28/24 18:04

Comments: Q9545043 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0312**	SL	**0.0307**
Arsenic	**7440-38-2**	**0.411**	D-F, QM-07	**0.00745**
Barium	**7440-39-3**	**3.09**	QB-01	**0.851**
Beryllium	**7440-41-7**	**0.00835**	GC-BS	**0.00254**
Cadmium	**7440-43-9**	**0.0764**		**0.0589**
Chromium	**7440-47-3**	**2.21**		**1.76**
Cobalt	**7440-48-4**	**0.297**		**0.0347**
Copper	**7440-50-8**	**39.3**	QM-07	**2.09**
Lead	**7439-92-1**	**0.570**		**0.170**
Manganese	**7439-96-5**	**9.64**	QM-07	**1.50**
Molybdenum	**7439-98-7**	**1.78**	QM-07	**0.285**
Nickel	**7440-02-0**	**0.671**		**0.518**
Selenium	**7782-49-2**	**0.178**		**0.00712**
Thallium	**7440-28-0**	**0.00170**		**4.68E-4**
Vanadium	**7440-62-2**	**0.783**		**0.0421**
Zinc	7440-66-6	25.0	U	61.1

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-021924-HM
Matrix: Air
Lab ID: 4022628-20
Sample Volume: 2146.286 m³
Filter ID:
Sampled: 02/19/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 06:09

Comments: Q9545042 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0910**	SL	**0.0293**
Arsenic	**7440-38-2**	**0.232**		**0.00710**
Barium	**7440-39-3**	**5.27**	QB-01	**0.811**
Beryllium	**7440-41-7**	**0.00653**	GC-BS	**0.00243**
Cadmium	7440-43-9	0.0172	U	0.0562
Chromium	**7440-47-3**	**1.86**		**1.68**
Cobalt	**7440-48-4**	**0.199**		**0.0331**
Copper	**7440-50-8**	**21.3**		**1.99**
Lead	**7439-92-1**	**0.824**		**0.162**
Manganese	**7439-96-5**	**6.04**		**1.43**
Molybdenum	**7439-98-7**	**1.01**		**0.272**
Nickel	**7440-02-0**	**0.729**		**0.494**
Selenium	**7782-49-2**	**0.161**		**0.00679**
Thallium	**7440-28-0**	**0.00156**		**4.46E-4**
Vanadium	**7440-62-2**	**0.562**		**0.0401**
Zinc	7440-66-6	23.6	U	58.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-021924-HM
Matrix: Air
Lab ID: 4022628-21
Sample Volume: 1943.827 m³
Filter ID:
Sampled: 02/19/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 06:26

Comments: Q9545041 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0363**	SL	**0.0323**
Arsenic	**7440-38-2**	**0.155**		**0.00784**
Barium	**7440-39-3**	**2.49**	QB-01	**0.896**
Beryllium	**7440-41-7**	**0.00527**	GC-BS	**0.00268**
Cadmium	7440-43-9	0.0156	U	0.0620
Chromium	**7440-47-3**	**2.03**		**1.85**
Cobalt	**7440-48-4**	**0.146**		**0.0365**
Copper	**7440-50-8**	**53.9**		**2.20**
Lead	**7439-92-1**	**0.741**		**0.179**
Manganese	**7439-96-5**	**3.39**		**1.58**
Molybdenum	**7439-98-7**	**2.66**		**0.300**
Nickel	**7440-02-0**	**0.578**		**0.546**
Selenium	**7782-49-2**	**0.152**		**0.00750**
Thallium	**7440-28-0**	**0.00142**		**4.93E-4**
Vanadium	**7440-62-2**	**0.284**		**0.0443**
Zinc	7440-66-6	26.9	U	64.3

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-021924-HM
Matrix: Air
Lab ID: 4022628-22
Sample Volume: 1920.5 m³
Filter ID:
Sampled: 02/19/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 07:35

Comments: Q9545037 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0458**	SL	**0.0327**
Arsenic	**7440-38-2**	**0.203**		**0.00794**
Barium	**7440-39-3**	**2.79**	QB-01	**0.906**
Beryllium	**7440-41-7**	**0.00423**	GC-BS	**0.00271**
Cadmium	7440-43-9	0.0181	U	0.0628
Chromium	7440-47-3	1.78	U	1.87
Cobalt	**7440-48-4**	**0.128**		**0.0369**
Copper	**7440-50-8**	**23.2**		**2.23**
Lead	**7439-92-1**	**0.624**		**0.181**
Manganese	**7439-96-5**	**3.82**		**1.60**
Molybdenum	**7439-98-7**	**1.49**		**0.304**
Nickel	7440-02-0	0.482	U	0.552
Selenium	**7782-49-2**	**0.150**		**0.00759**
Thallium	**7440-28-0**	**0.00145**		**4.99E-4**
Vanadium	**7440-62-2**	**0.314**		**0.0448**
Zinc	7440-66-6	20.1	U	65.1

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-FB01-021924-HM
Matrix: Air
Lab ID: 4022628-23
Sample Volume: 2046.027 m³
Filter ID:
Sampled: 02/19/24 00:00
Received: 02/26/24 14:05
Analysis Date: 02/29/24 07:51

Comments: Q9545033 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.00704	SL, U	0.0307
Arsenic	**7440-38-2**	**0.00874**	FB-01	**0.00745**
Barium	7440-39-3	0.679	QB-01, U	0.851
Beryllium	7440-41-7	9.05E-4	GC-BS, U	0.00254
Cadmium	7440-43-9	0.00249	U	0.0589
Chromium	7440-47-3	1.48	U	1.76
Cobalt	7440-48-4	0.0269	U	0.0347
Copper	**7440-50-8**	**5.53**	FB-01	**2.09**
Lead	**7439-92-1**	**0.252**	FB-01	**0.170**
Manganese	7439-96-5	0.273	U	1.50
Molybdenum	7439-98-7	0.256	U	0.285
Nickel	**7440-02-0**	**0.699**	FB-01	**0.518**
Selenium	7782-49-2	0.00604	U	0.00712
Thallium	7440-28-0	1.22E-4	U	4.68E-4
Vanadium	7440-62-2	0.00978	U	0.0421
Zinc	7440-66-6	18.2	U	61.1

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-022024-HM
Matrix: Air
Lab ID: 4022628-24
Sample Volume: 2075.243 m³
Filter ID:
Sampled: 02/20/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 08:05

Comments: Q9545035 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.136**	SL	**0.0303**
Arsenic	**7440-38-2**	**2.82**		**0.00735**
Barium	**7440-39-3**	**8.02**	QB-01	**0.839**
Beryllium	**7440-41-7**	**0.00480**	GC-BS	**0.00251**
Cadmium	7440-43-9	0.0387	U	0.0581
Chromium	**7440-47-3**	**2.49**		**1.73**
Cobalt	**7440-48-4**	**0.193**		**0.0342**
Copper	**7440-50-8**	**50.0**		**2.06**
Lead	**7439-92-1**	**1.63**		**0.168**
Manganese	**7439-96-5**	**5.92**		**1.48**
Molybdenum	**7439-98-7**	**2.04**		**0.281**
Nickel	**7440-02-0**	**0.827**		**0.511**
Selenium	**7782-49-2**	**0.124**		**0.00702**
Thallium	**7440-28-0**	**0.00141**		**4.62E-4**
Vanadium	**7440-62-2**	**0.626**		**0.0415**
Zinc	7440-66-6	38.0	U	60.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-022024-HM
Matrix: Air
Lab ID: 4022628-25
Sample Volume: 2183.151 m³
Filter ID:
Sampled: 02/20/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 08:23

Comments: Q9545031 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0996**	SL	**0.0288**
Arsenic	**7440-38-2**	**0.270**		**0.00698**
Barium	**7440-39-3**	**5.88**	QB-01	**0.797**
Beryllium	**7440-41-7**	**0.0110**	GC-BS	**0.00238**
Cadmium	7440-43-9	0.0423	U	0.0552
Chromium	**7440-47-3**	**2.47**		**1.65**
Cobalt	**7440-48-4**	**0.418**		**0.0325**
Copper	**7440-50-8**	**21.6**		**1.96**
Lead	**7439-92-1**	**0.790**		**0.159**
Manganese	**7439-96-5**	**12.6**		**1.41**
Molybdenum	**7439-98-7**	**0.901**		**0.268**
Nickel	**7440-02-0**	**1.30**		**0.486**
Selenium	**7782-49-2**	**0.165**		**0.00668**
Thallium	**7440-28-0**	**0.00141**		**4.39E-4**
Vanadium	**7440-62-2**	**1.15**		**0.0394**
Zinc	7440-66-6	25.3	U	57.2

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-022024-HM
Matrix: Air
Lab ID: 4022628-26
Sample Volume: 1984.987 m³
Filter ID:
Sampled: 02/20/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 08:38

Comments: Q9545030 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.0257	SL, U	0.0316
Arsenic	**7440-38-2**	**0.546**		**0.00768**
Barium	**7440-39-3**	**2.56**	QB-01	**0.877**
Beryllium	**7440-41-7**	**0.0146**	GC-BS	**0.00262**
Cadmium	7440-43-9	0.0127	U	0.0607
Chromium	**7440-47-3**	**2.59**		**1.81**
Cobalt	**7440-48-4**	**0.249**		**0.0357**
Copper	**7440-50-8**	**48.5**		**2.16**
Lead	**7439-92-1**	**0.433**		**0.175**
Manganese	**7439-96-5**	**5.95**		**1.55**
Molybdenum	**7439-98-7**	**2.57**		**0.294**
Nickel	**7440-02-0**	**0.828**		**0.534**
Selenium	**7782-49-2**	**0.144**		**0.00734**
Thallium	**7440-28-0**	**0.00132**		**4.83E-4**
Vanadium	**7440-62-2**	**0.641**		**0.0434**
Zinc	7440-66-6	17.7	U	62.9

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-022024-HM
Matrix: Air
Lab ID: 4022628-27
Sample Volume: 1939.714 m³
Filter ID:
Sampled: 02/20/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 08:53

Comments: Q9545028 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0545**	SL	**0.0324**
Arsenic	**7440-38-2**	**0.210**		**0.00786**
Barium	**7440-39-3**	**3.70**	QB-01	**0.897**
Beryllium	**7440-41-7**	**0.00741**	GC-BS	**0.00268**
Cadmium	7440-43-9	0.0141	U	0.0622
Chromium	**7440-47-3**	**2.15**		**1.85**
Cobalt	**7440-48-4**	**0.235**		**0.0366**
Copper	**7440-50-8**	**23.5**		**2.21**
Lead	**7439-92-1**	**0.773**		**0.179**
Manganese	**7439-96-5**	**6.32**		**1.59**
Molybdenum	**7439-98-7**	**1.42**		**0.301**
Nickel	**7440-02-0**	**0.824**		**0.547**
Selenium	**7782-49-2**	**0.145**		**0.00752**
Thallium	**7440-28-0**	**0.00132**		**4.94E-4**
Vanadium	**7440-62-2**	**0.619**		**0.0444**
Zinc	7440-66-6	24.3	U	64.4

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM01-022124-HM
Matrix: Air
Lab ID: 4022628-28
Sample Volume: 2048.936 m³
Filter ID:
Sampled: 02/21/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 09:23

Comments: Q9545027 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0374**	SL	**0.0307**
Arsenic	**7440-38-2**	**0.503**		**0.00744**
Barium	**7440-39-3**	**3.37**	QB-01	**0.850**
Beryllium	**7440-41-7**	**0.00647**	GC-BS	**0.00254**
Cadmium	7440-43-9	0.0126	U	0.0588
Chromium	**7440-47-3**	**2.03**		**1.75**
Cobalt	**7440-48-4**	**0.241**		**0.0346**
Copper	**7440-50-8**	**52.5**		**2.09**
Lead	**7439-92-1**	**0.576**		**0.170**
Manganese	**7439-96-5**	**6.49**		**1.50**
Molybdenum	**7439-98-7**	**2.22**		**0.285**
Nickel	**7440-02-0**	**1.05**		**0.518**
Selenium	**7782-49-2**	**0.145**		**0.00711**
Thallium	**7440-28-0**	**0.00103**		**4.68E-4**
Vanadium	**7440-62-2**	**0.855**		**0.0420**
Zinc	7440-66-6	21.3	U	61.0

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM02-022124-HM
Matrix: Air
Lab ID: 4022628-29
Sample Volume: 2096.839 m³
Filter ID:
Sampled: 02/21/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 09:38

Comments: Q9545026 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0811**	SL	**0.0300**
Arsenic	**7440-38-2**	**0.236**		**0.00727**
Barium	**7440-39-3**	**3.69**	QB-01	**0.830**
Beryllium	**7440-41-7**	**0.00651**	GC-BS	**0.00248**
Cadmium	7440-43-9	0.0156	U	0.0575
Chromium	**7440-47-3**	**1.86**		**1.71**
Cobalt	**7440-48-4**	**0.202**		**0.0338**
Copper	**7440-50-8**	**19.5**		**2.04**
Lead	**7439-92-1**	**0.667**		**0.166**
Manganese	**7439-96-5**	**5.46**		**1.47**
Molybdenum	**7439-98-7**	**1.07**		**0.279**
Nickel	**7440-02-0**	**0.820**		**0.506**
Selenium	**7782-49-2**	**0.155**		**0.00695**
Thallium	**7440-28-0**	**9.81E-4**		**4.57E-4**
Vanadium	**7440-62-2**	**0.905**		**0.0410**
Zinc	7440-66-6	20.5	U	59.6

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM03-022124-HM
Matrix: Air
Lab ID: 4022628-30
Sample Volume: 1971.624 m³
Filter ID:
Sampled: 02/21/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 09:53

Comments: Q9545025 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0636**	SL	**0.0319**
Arsenic	**7440-38-2**	**0.181**		**0.00773**
Barium	**7440-39-3**	**3.43**	QB-01	**0.883**
Beryllium	**7440-41-7**	**0.0214**	GC-BS	**0.00264**
Cadmium	7440-43-9	0.0121	U	0.0611
Chromium	**7440-47-3**	**2.51**		**1.82**
Cobalt	**7440-48-4**	**0.341**		**0.0360**
Copper	**7440-50-8**	**51.1**		**2.17**
Lead	**7439-92-1**	**0.526**		**0.177**
Manganese	**7439-96-5**	**7.49**		**1.56**
Molybdenum	**7439-98-7**	**2.64**		**0.296**
Nickel	**7440-02-0**	**1.27**		**0.538**
Selenium	**7782-49-2**	**0.181**		**0.00739**
Thallium	**7440-28-0**	**0.00107**		**4.86E-4**
Vanadium	**7440-62-2**	**1.11**		**0.0437**
Zinc	7440-66-6	20.0	U	63.4

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-AM04-022124-HM
Matrix: Air
Lab ID: 4022628-31
Sample Volume: 1863.554 m³
Filter ID:
Sampled: 02/21/24 23:59
Received: 02/26/24 14:05
Analysis Date: 02/29/24 10:57

Comments: Q9545024 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	**7440-36-0**	**0.0563**	SL	**0.0337**
Arsenic	**7440-38-2**	**0.130**		**0.00818**
Barium	**7440-39-3**	**2.98**	LJ, QB-01, QX	**0.934**
Beryllium	**7440-41-7**	**0.00522**	GC-BS	**0.00279**
Cadmium	7440-43-9	0.0137	U	0.0647
Chromium	**7440-47-3**	**2.07**		**1.93**
Cobalt	**7440-48-4**	**0.159**		**0.0381**
Copper	**7440-50-8**	**21.1**		**2.30**
Lead	**7439-92-1**	**0.490**		**0.187**
Manganese	**7439-96-5**	**5.00**		**1.65**
Molybdenum	**7439-98-7**	**1.40**		**0.313**
Nickel	**7440-02-0**	**0.702**		**0.569**
Selenium	**7782-49-2**	**0.160**		**0.00782**
Thallium	**7440-28-0**	**0.00102**		**5.14E-4**
Vanadium	**7440-62-2**	**0.886**		**0.0462**
Zinc	7440-66-6	18.0	U	67.1

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Description: MFL-FB01-022124-HM
Matrix: Air
Lab ID: 4022628-32
Sample Volume: 2048.936 m³
Filter ID:
Sampled: 02/21/24 00:00
Received: 02/26/24 14:05
Analysis Date: 02/29/24 11:12

Comments: Q9545021 - Received in good condition.

Inorganics by Compendium Method IO-3.5

Analyte	CAS Number	Results ng/m³ Air	Flag	MDL ng/m³ Air
Antimony	7440-36-0	0.00765	SL, U	0.0307
Arsenic	**7440-38-2**	**0.00924**	FB-01	**0.00744**
Barium	7440-39-3	0.649	LJ, QB-01, QX, U	0.850
Beryllium	7440-41-7	9.15E-4	GC-BS, U	0.00254
Cadmium	7440-43-9	0.00289	U	0.0588
Chromium	7440-47-3	1.52	U	1.75
Cobalt	7440-48-4	0.0253	U	0.0346
Copper	7440-50-8	0.590	U	2.09
Lead	7439-92-1	0.0731	U	0.170
Manganese	7439-96-5	0.197	U	1.50
Molybdenum	7439-98-7	0.264	U	0.285
Nickel	7440-02-0	0.290	U	0.518
Selenium	**7782-49-2**	**0.00860**	FB-01	**0.00711**
Thallium	7440-28-0	1.19E-4	U	4.68E-4
Vanadium	7440-62-2	0.00373	U	0.0420
Zinc	7440-66-6	11.6	U	61.0

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Blank (2402090-CCB1)				Prepared & Analyzed: 02/28/24						
Antimony	1.67		ng/l							
Arsenic	-2.73		ng/l							U
Barium	3.18		ng/l							
Beryllium	0.475		ng/l							
Cadmium	0.327		ng/l							
Chromium	11.2		ng/l							
Cobalt	1.20		ng/l							
Copper	559		ng/l							
Lead	5.46		ng/l							
Manganese	13.9		ng/l							
Molybdenum	12.7		ng/l							
Nickel	3.58		ng/l							
Selenium	13.6		ng/l							
Thallium	1.13		ng/l							
Vanadium	-46.9		ng/l							U
Zinc	52.7		ng/l							
Calibration Blank (2402090-CCB2)				Prepared & Analyzed: 02/28/24						
Antimony	0.620		ng/l							
Arsenic	-4.72		ng/l							U
Barium	4.41		ng/l							
Beryllium	0.514		ng/l							
Cadmium	0.325		ng/l							
Chromium	11.1		ng/l							
Cobalt	1.09		ng/l							
Copper	299		ng/l							
Lead	5.23		ng/l							
Manganese	14.2		ng/l							
Molybdenum	4.76		ng/l							
Nickel	2.67		ng/l							
Selenium	10.8		ng/l							
Thallium	0.773		ng/l							
Vanadium	-47.1		ng/l							U
Zinc	25.9		ng/l							
Calibration Blank (2402090-CCB3)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	1.81		ng/l							
Arsenic	5.13		ng/l							
Barium	6.37		ng/l							
Beryllium	1.05		ng/l							

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Blank (2402090-CCB3) Contin				Prepared: 02/28/24 Analyzed: 02/29/24						
Cadmium	0.593		ng/l							
Chromium	15.5		ng/l							
Cobalt	1.66		ng/l							
Copper	235		ng/l							
Lead	8.32		ng/l							
Manganese	22.3		ng/l							
Molybdenum	11.8		ng/l							
Nickel	4.28		ng/l							
Selenium	10.9		ng/l							
Thallium	1.14		ng/l							
Vanadium	-48.6		ng/l							U
Zinc	34.9		ng/l							
Calibration Blank (2402090-CCB4)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	0.733		ng/l							
Arsenic	2.48		ng/l							
Barium	5.48		ng/l							
Beryllium	0.0906		ng/l							
Cadmium	0.121		ng/l							
Chromium	12.3		ng/l							
Cobalt	1.17		ng/l							
Copper	119		ng/l							
Lead	4.56		ng/l							
Manganese	15.6		ng/l							
Molybdenum	3.80		ng/l							
Nickel	4.42		ng/l							
Selenium	7.01		ng/l							
Thallium	0.379		ng/l							
Vanadium	-47.0		ng/l							U
Zinc	37.9		ng/l							
Calibration Blank (2402090-CCB5)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	0.420		ng/l							
Arsenic	3.00		ng/l							
Barium	2.36		ng/l							
Beryllium	-0.196		ng/l							U
Cadmium	0.0172		ng/l							
Chromium	12.5		ng/l							
Cobalt	0.704		ng/l							
Copper	86.6		ng/l							

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Blank (2402090-CCB5) Contin				Prepared: 02/28/24 Analyzed: 02/29/24						
Lead	2.20		ng/l							
Manganese	11.9		ng/l							
Molybdenum	5.50		ng/l							
Nickel	1.41		ng/l							
Selenium	9.98		ng/l							
Thallium	0.547		ng/l							
Vanadium	-49.9		ng/l							U
Zinc	19.4		ng/l							
Calibration Blank (2402090-CCB6)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	0.571		ng/l							
Arsenic	4.05		ng/l							
Barium	2.90		ng/l							
Beryllium	-0.325		ng/l							U
Cadmium	-0.0267		ng/l							U
Chromium	14.3		ng/l							
Cobalt	0.612		ng/l							
Copper	84.6		ng/l							
Lead	2.79		ng/l							
Manganese	11.4		ng/l							
Molybdenum	6.32		ng/l							
Nickel	2.44		ng/l							
Selenium	15.5		ng/l							
Thallium	0.605		ng/l							
Vanadium	-50.3		ng/l							U
Zinc	26.7		ng/l							
Calibration Blank (2402090-CCB7)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	0.838		ng/l							
Arsenic	4.33		ng/l							
Barium	3.63		ng/l							
Beryllium	-0.156		ng/l							U
Cadmium	0.0851		ng/l							
Chromium	14.6		ng/l							
Cobalt	0.857		ng/l							
Copper	124		ng/l							
Lead	2.82		ng/l							
Manganese	13.0		ng/l							
Molybdenum	5.76		ng/l							
Nickel	0.545		ng/l							

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Blank (2402090-CCB7) Contin				Prepared: 02/28/24 Analyzed: 02/29/24						
Selenium	20.3		ng/l							
Thallium	0.575		ng/l							
Vanadium	-50.6		ng/l							U
Zinc	24.0		ng/l							
Calibration Check (2402090-CCV1)				Prepared & Analyzed: 02/28/24						
Antimony	19700		ng/l	20000		98.3	90-110			
Arsenic	19500		ng/l	20000		97.7	90-110			
Barium	195000		ng/l	200000		97.6	90-110			
Beryllium	4830		ng/l	5000.0		96.6	90-110			
Cadmium	19900		ng/l	20000		99.5	90-110			
Chromium	230000		ng/l	240000		95.7	90-110			
Cobalt	49100		ng/l	50000		98.1	90-110			
Copper	1.97E6		ng/l	2.0000E6		98.6	90-110			
Lead	195000		ng/l	200000		97.4	90-110			
Manganese	480000		ng/l	500000		96.1	90-110			
Molybdenum	49000		ng/l	50000		98.1	90-110			
Nickel	118000		ng/l	120000		98.1	90-110			
Selenium	19800		ng/l	20000		98.9	90-110			
Thallium	487		ng/l	500.00		97.3	90-110			
Vanadium	19400		ng/l	20000		96.9	90-110			
Zinc	519000		ng/l	500000		104	90-110			
Calibration Check (2402090-CCV2)				Prepared & Analyzed: 02/28/24						
Antimony	20500		ng/l	20000		102	90-110			
Arsenic	20300		ng/l	20000		102	90-110			
Barium	202000		ng/l	200000		101	90-110			
Beryllium	4610		ng/l	5000.0		92.1	90-110			
Cadmium	20700		ng/l	20000		104	90-110			
Chromium	242000		ng/l	240000		101	90-110			
Cobalt	51000		ng/l	50000		102	90-110			
Copper	2.07E6		ng/l	2.0000E6		103	90-110			
Lead	201000		ng/l	200000		100	90-110			
Manganese	504000		ng/l	500000		101	90-110			
Molybdenum	50700		ng/l	50000		101	90-110			
Nickel	122000		ng/l	120000		102	90-110			
Selenium	20100		ng/l	20000		100	90-110			
Thallium	492		ng/l	500.00		98.5	90-110			
Vanadium	20300		ng/l	20000		102	90-110			
Zinc	542000		ng/l	500000		108	90-110			

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Check (2402090-CCV3)				Prepared & Analyzed: 02/28/24						
Antimony	20400		ng/l	20000		102	90-110			
Arsenic	20100		ng/l	20000		100	90-110			
Barium	210000		ng/l	200000		105	90-110			
Beryllium	4740		ng/l	5000.0		94.9	90-110			
Cadmium	20200		ng/l	20000		101	90-110			
Chromium	236000		ng/l	240000		98.3	90-110			
Cobalt	49300		ng/l	50000		98.7	90-110			
Copper	2.00E6		ng/l	2.0000E6		100	90-110			
Lead	200000		ng/l	200000		100	90-110			
Manganese	497000		ng/l	500000		99.3	90-110			
Molybdenum	50700		ng/l	50000		101	90-110			
Nickel	118000		ng/l	120000		98.6	90-110			
Selenium	20700		ng/l	20000		104	90-110			
Thallium	496		ng/l	500.00		99.2	90-110			
Vanadium	20000		ng/l	20000		100	90-110			
Zinc	534000		ng/l	500000		107	90-110			
Calibration Check (2402090-CCV4)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	20400		ng/l	20000		102	90-110			
Arsenic	20100		ng/l	20000		100	90-110			
Barium	214000		ng/l	200000		107	90-110			
Beryllium	5160		ng/l	5000.0		103	90-110			
Cadmium	20200		ng/l	20000		101	90-110			
Chromium	235000		ng/l	240000		97.9	90-110			
Cobalt	49200		ng/l	50000		98.4	90-110			
Copper	2.01E6		ng/l	2.0000E6		100	90-110			
Lead	199000		ng/l	200000		99.3	90-110			
Manganese	499000		ng/l	500000		99.8	90-110			
Molybdenum	51100		ng/l	50000		102	90-110			
Nickel	117000		ng/l	120000		97.8	90-110			
Selenium	20300		ng/l	20000		102	90-110			
Thallium	490		ng/l	500.00		98.0	90-110			
Vanadium	19700		ng/l	20000		98.4	90-110			
Zinc	529000		ng/l	500000		106	90-110			
Calibration Check (2402090-CCV5)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	20800		ng/l	20000		104	90-110			
Arsenic	20600		ng/l	20000		103	90-110			
Barium	220000		ng/l	200000		110	90-110			
Beryllium	4760		ng/l	5000.0		95.2	90-110			

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Check (2402090-CCV5) Contin				Prepared: 02/28/24 Analyzed: 02/29/24						
Cadmium	20800		ng/l	20000		104	90-110			
Chromium	244000		ng/l	240000		102	90-110			
Cobalt	50800		ng/l	50000		102	90-110			
Copper	2.08E6		ng/l	2.0000E6		104	90-110			
Lead	203000		ng/l	200000		101	90-110			
Manganese	519000		ng/l	500000		104	90-110			
Molybdenum	52900		ng/l	50000		106	90-110			
Nickel	121000		ng/l	120000		101	90-110			
Selenium	20500		ng/l	20000		103	90-110			
Thallium	497		ng/l	500.00		99.4	90-110			
Vanadium	20300		ng/l	20000		101	90-110			
Zinc	546000		ng/l	500000		109	90-110			
Calibration Check (2402090-CCV6)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	20100		ng/l	20000		100	90-110			
Arsenic	19900		ng/l	20000		99.4	90-110			
Barium	213000		ng/l	200000		106	90-110			
Beryllium	5260		ng/l	5000.0		105	90-110			
Cadmium	19900		ng/l	20000		99.5	90-110			
Chromium	234000		ng/l	240000		97.4	90-110			
Cobalt	49100		ng/l	50000		98.2	90-110			
Copper	2.01E6		ng/l	2.0000E6		101	90-110			
Lead	197000		ng/l	200000		98.3	90-110			
Manganese	499000		ng/l	500000		99.9	90-110			
Molybdenum	51500		ng/l	50000		103	90-110			
Nickel	116000		ng/l	120000		97.1	90-110			
Selenium	20300		ng/l	20000		101	90-110			
Thallium	476		ng/l	500.00		95.2	90-110			
Vanadium	19400		ng/l	20000		97.0	90-110			
Zinc	524000		ng/l	500000		105	90-110			
Calibration Check (2402090-CCV7)				Prepared: 02/28/24 Analyzed: 02/29/24						
Antimony	21000		ng/l	20000		105	90-110			
Arsenic	20600		ng/l	20000		103	90-110			
Barium	225000		ng/l	200000		112	90-110			LJ, QX
Beryllium	4800		ng/l	5000.0		95.9	90-110			
Cadmium	20700		ng/l	20000		103	90-110			
Chromium	242000		ng/l	240000		101	90-110			
Cobalt	50600		ng/l	50000		101	90-110			
Copper	2.06E6		ng/l	2.0000E6		103	90-110			

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Calibration Check (2402090-CCV7) Contin					Prepared: 02/28/24 Analyzed: 02/29/24					
Lead	204000		ng/l	200000		102	90-110			
Manganese	511000		ng/l	500000		102	90-110			
Molybdenum	53400		ng/l	50000		107	90-110			
Nickel	120000		ng/l	120000		99.8	90-110			
Selenium	20600		ng/l	20000		103	90-110			
Thallium	500		ng/l	500.00		100	90-110			
Vanadium	20300		ng/l	20000		102	90-110			
Zinc	541000		ng/l	500000		108	90-110			
High Cal Check (2402090-HCV1)					Prepared & Analyzed: 02/28/24					
Antimony	39700		ng/l	40000		99.3	95-105			
Arsenic	40000		ng/l	40000		100	95-105			
Barium	398000		ng/l	400000		99.5	95-105			
Beryllium	9520		ng/l	10000		95.2	95-105			
Cadmium	39500		ng/l	40000		98.7	95-105			
Chromium	475000		ng/l	480000		99.0	95-105			
Cobalt	98000		ng/l	100000		98.0	95-105			
Copper	3.90E6		ng/l	4.0000E6		97.6	95-105			
Lead	394000		ng/l	400000		98.4	95-105			
Manganese	978000		ng/l	1.0000E6		97.8	95-105			
Molybdenum	98100		ng/l	100000		98.1	95-105			
Nickel	234000		ng/l	240000		97.7	95-105			
Selenium	39900		ng/l	40000		99.8	95-105			
Thallium	987		ng/l	1000.0		98.7	95-105			
Vanadium	39900		ng/l	40000		99.8	95-105			
Zinc	1.04E6		ng/l	1.0000E6		104	95-105			
Initial Cal Blank (2402090-ICB1)					Prepared & Analyzed: 02/28/24					
Antimony	1.70		ng/l							
Arsenic	-6.93		ng/l							U
Barium	2.08		ng/l							
Beryllium	0.482		ng/l							
Cadmium	0.136		ng/l							
Chromium	6.31		ng/l							
Cobalt	0.873		ng/l							
Copper	266		ng/l							
Lead	4.66		ng/l							
Manganese	12.8		ng/l							
Molybdenum	5.16		ng/l							
Nickel	-0.561		ng/l							U

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Initial Cal Blank (2402090-ICB1) Continu					Prepared & Analyzed: 02/28/24					
Selenium	4.04		ng/l							
Thallium	0.917		ng/l							
Vanadium	-48.8		ng/l							U
Zinc	81.8		ng/l							
Initial Cal Check (2402090-ICV1)					Prepared & Analyzed: 02/28/24					
Antimony	20100		ng/l	20000		101	90-110			
Arsenic	20300		ng/l	20000		102	90-110			
Barium	200000		ng/l	200000		99.9	90-110			
Beryllium	4860		ng/l	5000.0		97.2	90-110			
Cadmium	20800		ng/l	20000		104	90-110			
Chromium	236000		ng/l	240000		98.5	90-110			
Cobalt	50900		ng/l	50000		102	90-110			
Copper	2.03E6		ng/l	2.0000E6		102	90-110			
Lead	197000		ng/l	200000		98.4	90-110			
Manganese	492000		ng/l	500000		98.4	90-110			
Molybdenum	50700		ng/l	50000		101	90-110			
Nickel	121000		ng/l	120000		101	90-110			
Selenium	20900		ng/l	20000		105	90-110			
Thallium	513		ng/l	500.00		103	90-110			
Vanadium	20400		ng/l	20000		102	90-110			
Zinc	542000		ng/l	500000		108	90-110			
Interference Check A (2402090-IFA1)					Prepared & Analyzed: 02/28/24					
Antimony	0.00		ng/l				80-120			U
Arsenic	0.00		ng/l				80-120			U
Barium	0.00		ng/l				80-120			U
Beryllium	0.00		ng/l				80-120			U
Cadmium	0.00		ng/l				80-120			U
Chromium	0.00		ng/l				80-120			U
Cobalt	0.00		ng/l				80-120			U
Copper	0.00		ng/l				80-120			U
Lead	0.00		ng/l				80-120			U
Manganese	0.00		ng/l				80-120			U
Molybdenum	304000		ng/l	300000		101	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

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch 2402090 - B4B2803										
Interference Check B (2402090-IFB1)				Prepared & Analyzed: 02/28/24						
Antimony	20500		ng/l	20000		102	80-120			
Arsenic	20500		ng/l	20000		103	80-120			
Barium	203000		ng/l	200000		102	80-120			
Beryllium	4800		ng/l	5000.0		96.0	80-120			
Cadmium	19800		ng/l	20000		99.2	80-120			
Chromium	229000		ng/l	240000		95.3	80-120			
Cobalt	49500		ng/l	50000		99.0	80-120			
Copper	1.91E6		ng/l	2.0000E6		95.4	80-120			
Lead	205000		ng/l	200000		102	80-120			
Manganese	515000		ng/l	500000		103	80-120			
Molybdenum	356000		ng/l	350000		102	80-120			
Nickel	116000		ng/l	120000		96.8	80-120			
Selenium	19300		ng/l	20000		96.7	80-120			
Thallium	516		ng/l	500.00		103	80-120			
Vanadium	18900		ng/l	20000		94.5	80-120			
Zinc	491000		ng/l	500000		98.3	80-120			
Batch B4B2803 - ICP-MS Extraction										
Blank (B4B2803-BLK1)				Prepared & Analyzed: 02/28/24						
Antimony	ND	0.0386	ng/m³ Air							SL, U
Arsenic	ND	0.00937	ng/m³ Air							U
Barium	ND	1.07	ng/m³ Air							QB-01, U
Beryllium	ND	0.00320	ng/m³ Air							GC-BS, U
Cadmium	ND	0.0793	ng/m³ Air							U
Chromium	ND	2.21	ng/m³ Air							U
Cobalt	ND	0.0436	ng/m³ Air							U
Copper	ND	2.63	ng/m³ Air							U
Lead	ND	0.214	ng/m³ Air							U
Manganese	ND	1.89	ng/m³ Air							U
Molybdenum	ND	0.359	ng/m³ Air							U
Nickel	ND	0.652	ng/m³ Air							U
Selenium	ND	0.00896	ng/m³ Air							U
Thallium	ND	5.89E-4	ng/m³ Air							U
Vanadium	ND	0.0529	ng/m³ Air							U
Zinc	ND	76.8	ng/m³ Air							U
Blank (B4B2803-BLK2)				Prepared & Analyzed: 02/28/24						
Antimony	ND	0.0386	ng/m³ Air							SL, U
Arsenic	ND	0.00937	ng/m³ Air							U
Barium	ND	1.07	ng/m³ Air							QB-01, U

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Blank (B4B2803-BLK2) Continued					Prepared & Analyzed: 02/28/24					
Beryllium	ND	0.00320	ng/m³ Air							GC-BS, U
Cadmium	ND	0.0793	ng/m³ Air							U
Chromium	ND	2.21	ng/m³ Air							U
Cobalt	ND	0.0436	ng/m³ Air							U
Copper	ND	2.63	ng/m³ Air							U
Lead	ND	0.214	ng/m³ Air							U
Manganese	ND	1.89	ng/m³ Air							U
Molybdenum	ND	0.359	ng/m³ Air							U
Nickel	ND	0.652	ng/m³ Air							U
Selenium	ND	0.00896	ng/m³ Air							U
Thallium	ND	5.89E-4	ng/m³ Air							U
Vanadium	ND	0.0529	ng/m³ Air							U
Zinc	ND	76.8	ng/m³ Air							U
LCS (B4B2803-BS1)					Prepared & Analyzed: 02/28/24					
Antimony	0.665	0.0386	ng/m³ Air	1.3829		48.1	80-120			SL
Arsenic	2.31	0.00937	ng/m³ Air	2.7658		83.6	80-120			
Barium	23.9	1.07	ng/m³ Air	27.658		86.5	80-120			QB-01
Beryllium	1.10	0.00320	ng/m³ Air	1.3829		79.4	80-120			GC-BS
Cadmium	1.21	0.0793	ng/m³ Air	1.3829		87.2	80-120			
Chromium	13.3	2.21	ng/m³ Air	13.829		95.9	80-120			
Cobalt	1.17	0.0436	ng/m³ Air	1.3829		84.9	80-120			
Copper	25.9	2.63	ng/m³ Air	27.658		93.5	80-120			
Lead	11.5	0.214	ng/m³ Air	13.829		83.2	80-120			
Manganese	7.35	1.89	ng/m³ Air	8.2975		88.5	80-120			
Molybdenum	1.29	0.359	ng/m³ Air	1.3829		93.3	80-120			
Nickel	2.70	0.652	ng/m³ Air	2.7658		97.7	80-120			
Selenium	2.40	0.00896	ng/m³ Air	2.7658		86.7	80-120			
Thallium	0.112	5.89E-4	ng/m³ Air	0.13829		81.0	80-120			
Vanadium	2.38	0.0529	ng/m³ Air	2.7658		86.1	80-120			
Zinc	113	76.8	ng/m³ Air	82.975		136	80-120			
LCS (B4B2803-BS2)					Prepared & Analyzed: 02/28/24					
Antimony	0.730	0.0386	ng/m³ Air	1.3829		52.8	80-120			SL
Arsenic	2.50	0.00937	ng/m³ Air	2.7658		90.2	80-120			
Barium	26.1	1.07	ng/m³ Air	27.658		94.4	80-120			QB-01
Beryllium	1.17	0.00320	ng/m³ Air	1.3829		84.5	80-120			GC-BS
Cadmium	1.30	0.0793	ng/m³ Air	1.3829		94.1	80-120			
Chromium	14.4	2.21	ng/m³ Air	13.829		104	80-120			
Cobalt	1.26	0.0436	ng/m³ Air	1.3829		90.9	80-120			

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
LCS (B4B2803-BS2) Continued					Prepared & Analyzed: 02/28/24					
Copper	27.5	2.63	ng/m³ Air	27.658		99.5	80-120			
Lead	12.5	0.214	ng/m³ Air	13.829		90.1	80-120			
Manganese	7.91	1.89	ng/m³ Air	8.2975		95.4	80-120			
Molybdenum	1.41	0.359	ng/m³ Air	1.3829		102	80-120			
Nickel	2.93	0.652	ng/m³ Air	2.7658		106	80-120			
Selenium	2.56	0.00896	ng/m³ Air	2.7658		92.7	80-120			
Thallium	0.121	5.89E-4	ng/m³ Air	0.13829		87.2	80-120			
Vanadium	2.58	0.0529	ng/m³ Air	2.7658		93.3	80-120			
Zinc	126	76.8	ng/m³ Air	82.975		152	80-120			
Duplicate (B4B2803-DUP1)		**Source: 4022628-19**			Prepared & Analyzed: 02/28/24					
Antimony	ND	0.0307	ng/m³ Air		0.0312				10	SL, U
Arsenic	0.309	0.00745	ng/m³ Air		0.411			28.5	10	D-F
Barium	2.71	0.851	ng/m³ Air		3.09			13.1	10	QB-01
Beryllium	0.00776	0.00254	ng/m³ Air		0.00835			7.39	10	GC-BS
Cadmium	ND	0.0631	ng/m³ Air		0.0764				10	U
Chromium	2.17	1.76	ng/m³ Air		2.21			1.73	10	
Cobalt	0.266	0.0347	ng/m³ Air		0.297			11.0	10	
Copper	36.9	2.09	ng/m³ Air		39.3			6.13	10	
Lead	0.604	0.170	ng/m³ Air		0.570			5.75	10	
Manganese	8.62	1.50	ng/m³ Air		9.64			11.2	10	
Molybdenum	1.61	0.285	ng/m³ Air		1.78			10.5	10	
Nickel	0.688	0.518	ng/m³ Air		0.671			2.49	10	
Selenium	0.162	0.00712	ng/m³ Air		0.178			9.45	10	
Thallium	0.00139	4.68E-4	ng/m³ Air		0.00170			19.9	10	
Vanadium	0.712	0.0421	ng/m³ Air		0.783			9.46	10	
Zinc	ND	61.1	ng/m³ Air		ND				10	U
Duplicate (B4B2803-DUP2)		**Source: 4022628-08**			Prepared & Analyzed: 02/28/24					
Antimony	ND	0.0330	ng/m³ Air		ND				10	SL, U
Arsenic	0.0546	0.00801	ng/m³ Air		0.0685			22.7	10	D-F
Barium	1.38	0.914	ng/m³ Air		1.62			16.5	10	QB-01
Beryllium	0.00896	0.00273	ng/m³ Air		0.0110			20.2	10	GC-BS
Cadmium	ND	0.0678	ng/m³ Air		ND				10	U
Chromium	ND	1.89	ng/m³ Air		2.13				10	U
Cobalt	0.169	0.0373	ng/m³ Air		0.211			22.0	10	
Copper	36.8	2.25	ng/m³ Air		34.1			7.47	10	
Lead	0.398	0.183	ng/m³ Air		0.419			5.05	10	
Manganese	4.60	1.62	ng/m³ Air		5.40			16.0	10	
Molybdenum	1.69	0.307	ng/m³ Air		1.89			10.8	10	

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Duplicate (B4B2803-DUP2) Continued			**Source: 4022628-08**		Prepared & Analyzed: 02/28/24					
Nickel	0.776	0.557	ng/m³ Air		0.876			12.1	10	
Selenium	0.129	0.00766	ng/m³ Air		0.148			13.5	10	
Thallium	0.00103	5.03E-4	ng/m³ Air		0.00121			16.1	10	
Vanadium	0.407	0.0452	ng/m³ Air		0.483			17.2	10	
Zinc	ND	65.6	ng/m³ Air		ND				10	U
Duplicate (B4B2803-DUP3)			**Source: 4022628-02**		Prepared: 02/28/24 Analyzed: 02/29/24					
Antimony	0.0752	0.0297	ng/m³ Air		0.0758			0.752	10	SL
Arsenic	0.295	0.00721	ng/m³ Air		0.295			0.0443	10	
Barium	2.78	0.824	ng/m³ Air		2.77			0.239	10	QB-01
Beryllium	0.00527	0.00246	ng/m³ Air		0.00506			4.11	10	GC-BS
Cadmium	ND	0.0610	ng/m³ Air		ND				10	U
Chromium	ND	1.70	ng/m³ Air		ND				10	U
Cobalt	0.152	0.0336	ng/m³ Air		0.150			1.37	10	
Copper	16.3	2.02	ng/m³ Air		16.2			0.390	10	
Lead	0.701	0.165	ng/m³ Air		0.700			0.142	10	
Manganese	4.22	1.45	ng/m³ Air		4.19			0.713	10	
Molybdenum	0.719	0.276	ng/m³ Air		0.717			0.236	10	
Nickel	0.658	0.502	ng/m³ Air		0.655			0.521	10	
Selenium	0.139	0.00690	ng/m³ Air		0.136			1.98	10	
Thallium	6.99E-4	4.53E-4	ng/m³ Air		6.68E-4			4.49	10	
Vanadium	0.404	0.0407	ng/m³ Air		0.404			0.0630	10	
Zinc	ND	59.1	ng/m³ Air		ND				10	U
Duplicate (B4B2803-DUP4)			**Source: 4022628-27**		Prepared: 02/28/24 Analyzed: 02/29/24					
Antimony	0.0541	0.0324	ng/m³ Air		0.0545			0.837	10	SL
Arsenic	0.206	0.00786	ng/m³ Air		0.210			1.60	10	
Barium	3.71	0.897	ng/m³ Air		3.70			0.0528	10	QB-01
Beryllium	0.00701	0.00268	ng/m³ Air		0.00741			5.54	10	GC-BS
Cadmium	ND	0.0665	ng/m³ Air		ND				10	U
Chromium	2.13	1.85	ng/m³ Air		2.15			1.01	10	
Cobalt	0.235	0.0366	ng/m³ Air		0.235			0.112	10	
Copper	23.4	2.21	ng/m³ Air		23.5			0.630	10	
Lead	0.774	0.179	ng/m³ Air		0.773			0.147	10	
Manganese	6.31	1.59	ng/m³ Air		6.32			0.238	10	
Molybdenum	1.41	0.301	ng/m³ Air		1.42			1.07	10	
Nickel	0.815	0.547	ng/m³ Air		0.824			1.07	10	
Selenium	0.152	0.00752	ng/m³ Air		0.145			4.64	10	
Thallium	0.00127	4.94E-4	ng/m³ Air		0.00132			3.84	10	
Vanadium	0.617	0.0444	ng/m³ Air		0.619			0.324	10	

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Duplicate (B4B2803-DUP4) Continued			**Source: 4022628-27**		Prepared: 02/28/24 Analyzed: 02/29/24					
Zinc	ND	64.4	ng/m³ Air		ND				10	U
Matrix Spike (B4B2803-MS1)			**Source: 4022628-19**		Prepared & Analyzed: 02/28/24					
Antimony	0.383	0.0307	ng/m³ Air	1.0997	0.0312	32.0	80-120			SL
Arsenic	2.15	0.00745	ng/m³ Air	2.1994	0.411	78.9	80-120			QM-07
Barium	21.6	0.851	ng/m³ Air	21.994	3.09	84.2	80-120			QB-01
Beryllium	0.942	0.00254	ng/m³ Air	1.0997	0.00835	84.9	80-120			GC-BS
Cadmium	1.01	0.0631	ng/m³ Air	1.0997	0.0764	85.1	80-120			
Chromium	11.8	1.76	ng/m³ Air	10.997	2.21	86.8	80-120			
Cobalt	1.22	0.0347	ng/m³ Air	1.0997	0.297	83.8	80-120			
Copper	54.0	2.09	ng/m³ Air	21.994	39.3	67.0	80-120			QM-07
Lead	9.89	0.170	ng/m³ Air	10.997	0.570	84.8	80-120			
Manganese	14.6	1.50	ng/m³ Air	6.5982	9.64	74.7	80-120			QM-07
Molybdenum	2.53	0.285	ng/m³ Air	1.0997	1.78	68.1	80-120			QM-07
Nickel	2.45	0.518	ng/m³ Air	2.1994	0.671	80.9	80-120			
Selenium	2.07	0.00712	ng/m³ Air	2.1994	0.178	86.2	80-120			
Thallium	0.0917	4.68E-4	ng/m³ Air	0.10997	0.00170	81.8	80-120			
Vanadium	2.60	0.0421	ng/m³ Air	2.1994	0.783	82.6	80-120			
Zinc	80.9	61.1	ng/m³ Air	65.982	ND	123	80-120			
Matrix Spike (B4B2803-MS2)			**Source: 4022628-08**		Prepared & Analyzed: 02/28/24					
Antimony	0.436	0.0330	ng/m³ Air	1.1818	ND	36.9	80-120			SL
Arsenic	2.13	0.00801	ng/m³ Air	2.3636	0.0685	87.4	80-120			
Barium	22.9	0.914	ng/m³ Air	23.636	1.62	90.2	80-120			QB-01
Beryllium	1.04	0.00273	ng/m³ Air	1.1818	0.0110	87.5	80-120			GC-BS
Cadmium	1.09	0.0678	ng/m³ Air	1.1818	ND	91.8	80-120			
Chromium	12.5	1.89	ng/m³ Air	11.818	2.13	88.0	80-120			
Cobalt	1.20	0.0373	ng/m³ Air	1.1818	0.211	83.3	80-120			
Copper	54.8	2.25	ng/m³ Air	23.636	34.1	87.2	80-120			
Lead	10.9	0.183	ng/m³ Air	11.818	0.419	88.8	80-120			
Manganese	11.3	1.62	ng/m³ Air	7.0907	5.40	83.1	80-120			
Molybdenum	2.66	0.307	ng/m³ Air	1.1818	1.89	64.9	80-120			QM-07
Nickel	3.22	0.557	ng/m³ Air	2.3636	0.876	99.0	80-120			
Selenium	2.24	0.00766	ng/m³ Air	2.3636	0.148	88.7	80-120			
Thallium	0.101	5.03E-4	ng/m³ Air	0.11818	0.00121	84.3	80-120			
Vanadium	2.53	0.0452	ng/m³ Air	2.3636	0.483	86.4	80-120			
Zinc	99.3	65.6	ng/m³ Air	70.907	ND	140	80-120			QM-07
Matrix Spike Dup (B4B2803-MSD1)			**Source: 4022628-19**		Prepared & Analyzed: 02/28/24					
Antimony	0.408	0.0307	ng/m³ Air	1.0997	0.0312	34.3	80-120	6.37	20	SL
Arsenic	2.19	0.00745	ng/m³ Air	2.1994	0.411	80.7	80-120	1.88	20	

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Matrix Spike Dup (B4B2803-MSD1) Conti				**Source: 4022628-19**		Prepared & Analyzed: 02/28/24				
Barium	22.1	0.851	ng/m³ Air	21.994	3.09	86.6	80-120	2.40	20	QB-01
Beryllium	0.961	0.00254	ng/m³ Air	1.0997	0.00835	86.6	80-120	2.02	20	GC-BS
Cadmium	1.02	0.0631	ng/m³ Air	1.0997	0.0764	85.9	80-120	0.879	20	
Chromium	12.3	1.76	ng/m³ Air	10.997	2.21	91.9	80-120	4.63	20	
Cobalt	1.26	0.0347	ng/m³ Air	1.0997	0.297	88.0	80-120	3.69	20	
Copper	57.3	2.09	ng/m³ Air	21.994	39.3	81.9	80-120	5.92	20	
Lead	10.2	0.170	ng/m³ Air	10.997	0.570	87.6	80-120	3.16	20	
Manganese	15.3	1.50	ng/m³ Air	6.5982	9.64	86.1	80-120	5.06	20	
Molybdenum	2.64	0.285	ng/m³ Air	1.0997	1.78	78.3	80-120	4.32	20	QM-07
Nickel	2.58	0.518	ng/m³ Air	2.1994	0.671	86.9	80-120	5.26	20	
Selenium	2.13	0.00712	ng/m³ Air	2.1994	0.178	88.6	80-120	2.54	20	
Thallium	0.0935	4.68E-4	ng/m³ Air	0.10997	0.00170	83.5	80-120	2.01	20	
Vanadium	2.67	0.0421	ng/m³ Air	2.1994	0.783	85.7	80-120	2.56	20	
Zinc	85.6	61.1	ng/m³ Air	65.982	ND	130	80-120	5.57	20	
Matrix Spike Dup (B4B2803-MSD2)				**Source: 4022628-08**		Prepared & Analyzed: 02/28/24				
Antimony	0.538	0.0330	ng/m³ Air	1.1818	ND	45.5	80-120	20.9	20	SL
Arsenic	2.14	0.00801	ng/m³ Air	2.3636	0.0685	87.7	80-120	0.341	20	
Barium	23.5	0.914	ng/m³ Air	23.636	1.62	92.7	80-120	2.57	20	QB-01
Beryllium	1.03	0.00273	ng/m³ Air	1.1818	0.0110	86.3	80-120	1.31	20	GC-BS
Cadmium	1.09	0.0678	ng/m³ Air	1.1818	ND	91.9	80-120	0.0880	20	
Chromium	12.8	1.89	ng/m³ Air	11.818	2.13	90.3	80-120	2.15	20	
Cobalt	1.23	0.0373	ng/m³ Air	1.1818	0.211	86.6	80-120	3.25	20	
Copper	52.0	2.25	ng/m³ Air	23.636	34.1	75.6	80-120	5.15	20	QM-07
Lead	10.9	0.183	ng/m³ Air	11.818	0.419	88.5	80-120	0.308	20	
Manganese	11.7	1.62	ng/m³ Air	7.0907	5.40	88.4	80-120	3.27	20	
Molybdenum	2.69	0.307	ng/m³ Air	1.1818	1.89	67.5	80-120	1.13	20	QM-07
Nickel	2.84	0.557	ng/m³ Air	2.3636	0.876	82.9	80-120	12.6	20	
Selenium	2.31	0.00766	ng/m³ Air	2.3636	0.148	91.6	80-120	3.00	20	
Thallium	0.100	5.03E-4	ng/m³ Air	0.11818	0.00121	83.9	80-120	0.465	20	
Vanadium	2.59	0.0452	ng/m³ Air	2.3636	0.483	89.1	80-120	2.51	20	
Zinc	97.1	65.6	ng/m³ Air	70.907	ND	137	80-120	2.25	20	QM-07
Post Spike (B4B2803-PS1)				**Source: 4022628-19**		Prepared & Analyzed: 02/28/24				
Antimony	0.250	0.0307	ng/m³ Air	0.21994	0.0312	99.6	75-125			SL
Arsenic	1.47	0.00745	ng/m³ Air	1.0997	0.411	96.5	75-125			
Barium	5.26	0.851	ng/m³ Air	2.1994	3.09	98.5	75-125			QB-01
Beryllium	0.219	0.00254	ng/m³ Air	0.21994	0.00835	95.6	75-125			GC-BS
Cadmium	0.187	0.0631	ng/m³ Air	0.10997	0.0764	101	75-125			
Chromium	3.46	1.76	ng/m³ Air	1.0997	2.21	113	75-125			

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Post Spike (B4B2803-PS1) Continued			**Source: 4022628-19**		Prepared & Analyzed: 02/28/24					
Cobalt	0.522	0.0347	ng/m³ Air	0.21994	0.297	102	75-125			
Copper	51.7	2.09	ng/m³ Air	10.997	39.3	112	75-125			
Lead	21.9	0.170	ng/m³ Air	21.994	0.570	97.1	75-125			
Manganese	12.1	1.50	ng/m³ Air	2.1994	9.64	112	75-125			
Molybdenum	2.85	0.285	ng/m³ Air	1.0997	1.78	97.2	75-125			
Nickel	2.81	0.518	ng/m³ Air	2.1994	0.671	97.3	75-125			
Selenium	1.25	0.00712	ng/m³ Air	1.0997	0.178	97.7	75-125			
Thallium	0.0566	4.68E-4	ng/m³ Air	5.4985E-2	0.00170	99.9	75-125			
Vanadium	1.86	0.0421	ng/m³ Air	1.0997	0.783	97.6	75-125			
Zinc	ND	61.1	ng/m³ Air	21.994	ND		75-125			U
Post Spike (B4B2803-PS2)			**Source: 4022628-08**		Prepared & Analyzed: 02/28/24					
Antimony	0.253	0.0330	ng/m³ Air	0.23636	ND	107	75-125			SL
Arsenic	1.20	0.00801	ng/m³ Air	1.1818	0.0685	95.7	75-125			
Barium	4.06	0.914	ng/m³ Air	2.3636	1.62	103	75-125			QB-01
Beryllium	0.232	0.00273	ng/m³ Air	0.23636	0.0110	93.4	75-125			GC-BS
Cadmium	0.130	0.0678	ng/m³ Air	0.11818	ND	110	75-125			
Chromium	3.28	1.89	ng/m³ Air	1.1818	2.13	97.1	75-125			
Cobalt	0.441	0.0373	ng/m³ Air	0.23636	0.211	97.1	75-125			
Copper	45.9	2.25	ng/m³ Air	11.818	34.1	99.6	75-125			
Lead	23.4	0.183	ng/m³ Air	23.636	0.419	97.4	75-125			
Manganese	7.80	1.62	ng/m³ Air	2.3636	5.40	101	75-125			
Molybdenum	3.02	0.307	ng/m³ Air	1.1818	1.89	96.2	75-125			
Nickel	3.10	0.557	ng/m³ Air	2.3636	0.876	94.1	75-125			
Selenium	1.29	0.00766	ng/m³ Air	1.1818	0.148	96.4	75-125			
Thallium	0.0602	5.03E-4	ng/m³ Air	5.9089E-2	0.00121	99.9	75-125			
Vanadium	1.63	0.0452	ng/m³ Air	1.1818	0.483	97.1	75-125			
Zinc	72.9	65.6	ng/m³ Air	23.636	ND	309	75-125			
Dilution Check (B4B2803-SRL1)			**Source: 4022628-19**		Prepared & Analyzed: 02/28/24					
Antimony	ND	0.153	ng/m³ Air		ND				10	SL, U
Arsenic	0.406	0.0373	ng/m³ Air		0.411			1.38	10	
Barium	ND	4.25	ng/m³ Air		ND				10	QB-01, U
Beryllium	ND	0.0127	ng/m³ Air		ND				10	GC-BS, U
Cadmium	ND	0.315	ng/m³ Air		ND				10	U
Chromium	ND	8.79	ng/m³ Air		ND				10	U
Cobalt	0.306	0.173	ng/m³ Air		0.297			2.78	10	
Copper	40.6	10.5	ng/m³ Air		39.3			3.19	10	
Lead	ND	0.851	ng/m³ Air		ND				10	U
Manganese	9.82	7.51	ng/m³ Air		9.64			1.84	10	

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: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Inorganics by Compendium Method IO-3.5 - Quality Control										
Batch B4B2803 - ICP-MS Extraction										
Dilution Check (B4B2803-SRL1) Continue				**Source: 4022628-19**			Prepared & Analyzed: 02/28/24			
Molybdenum	1.80	1.43	ng/m³ Air		1.78			1.15	10	
Nickel	ND	2.59	ng/m³ Air		ND				10	U
Selenium	0.174	0.0356	ng/m³ Air		0.178			2.03	10	
Thallium	ND	0.00234	ng/m³ Air		ND				10	U
Vanadium	0.776	0.210	ng/m³ Air		0.783			0.915	10	
Zinc	ND	305	ng/m³ Air		ND				10	U
Dilution Check (B4B2803-SRL2)				**Source: 4022628-08**			Prepared & Analyzed: 02/28/24			
Antimony	ND	0.165	ng/m³ Air		ND				10	SL, U
Arsenic	0.0726	0.0400	ng/m³ Air		0.0685			5.76	10	
Barium	ND	4.57	ng/m³ Air		ND				10	QB-01, U
Beryllium	ND	0.0137	ng/m³ Air		ND				10	GC-BS, U
Cadmium	ND	0.339	ng/m³ Air		ND				10	U
Chromium	ND	9.44	ng/m³ Air		ND				10	U
Cobalt	0.217	0.186	ng/m³ Air		0.211			2.84	10	
Copper	35.4	11.2	ng/m³ Air		34.1			3.64	10	
Lead	ND	0.914	ng/m³ Air		ND				10	U
Manganese	ND	8.08	ng/m³ Air		ND				10	U
Molybdenum	1.90	1.53	ng/m³ Air		1.89			0.875	10	
Nickel	ND	2.79	ng/m³ Air		ND				10	U
Selenium	0.169	0.0383	ng/m³ Air		0.148			13.8	10	
Thallium	ND	0.00252	ng/m³ Air		ND				10	U
Vanadium	0.483	0.226	ng/m³ Air		0.483			0.0580	10	
Zinc	ND	328	ng/m³ Air		ND				10	U

CERTIFICATE OF ANALYSIS

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

FILE #: 4205.00.003.001
REPORTED: 03/05/24 15:59
SUBMITTED: 02/26/24
AQS SITE CODE:
SITE CODE: Lahaina fires

Notes and Definitions

U	Under Detection Limit
SL	The spike recovery was outside acceptance limits. Reported value may be biased low.
QX	Compound does not meet QC criteria. Results should be considered an estimate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD.
QB-01	Analyte exceeds method blank criteria
LJ	Identification of analyte is acceptable; reported value is an estimate.
GC-BS	Compound exceeds Blank Spike Criteria
FB-01	Analyte exceeds Field Blank criteria.
D-F	Duplicate exceeds DQO 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 3/08/2024 and Shanna Vasser 3/11/2024
Laboratory: Eastern Research Group – Morrisville, NC
Collection date(s): 2/15/2024 - 2/21/2024
Report No: 4022628

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

Discrepancies:

13. Field blank detections above the method detection limit were reported for arsenic and copper in MFL-FB01-021524-HM; copper in MFL-FB01-021724-HM; arsenic, copper, lead, and nickel in MFL-FB01-021924-HM; and arsenic and selenium in MFL-FB01-022124-HM.

Notes: None