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 200 Route 130 North, Cinnaminson, NJ 08077
 Phone: (800) 220-3675
 Fax: (856) 858-1292
 Email: CinnAsblab@emsl.com

EMSL Order: 042323695
 Customer ID: TTRA62
 Customer PO: 103S864023138
 Project ID:

Attn: *Eric Jensen*
Tetra Tech EMI, Inc.
737 Bishop Street
Suite 2340
Honolulu, HI, 96813

Phone: (808) 441-6600
 Fax: N/A
 Collected: 09/21/2023
 Received: 10/02/23 9:00

Project: **DOH Maui Wildfire Ash Sample - KULA**

Analyzed: 10/04/23

SUMMARY REPORT : TEM EPA 600/R-93/116

Analysis of Bulk Material Utilizing Analytical Electron Microscopy (Section 2.5.5.2) without Milling Prep

Sample ID	Minerals Present	Results	Structures	Reporting Limit	Asbestos Weight	Comments
KULA ASH #1	No Structures Detected	Regulated Asbestos	0	0.1%	< 0.1%	
042323695-0001		Other Minerals	0		< 0.1%	
ASH - KULA, MAUI, HAWAII		Total	0		< 0.1%	
		Undetermined	0		-----	

Sample was sieved prior to analysis to remove building debris. Milling was not needed

A. Burke
 Analyst

Samantha Rumpff
 Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL is not responsible for sample collection activities or analytical method limitations. Interpretation and use of results are the responsibility of the client. Regulated asbestos includes the 6 Federally regulated types: Chrysotile, Amosite, Crocidolite, Actinolite, Tremolite, Anthophyllite. Other minerals can include: Libby Amphibole, Erionite, and other Non-regulated minerals and are reported here for informational purposes. There are inherent limitations to any method, please contact the laboratory for more information on the analysis or to request additional testing.



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 Project ID: 138

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Analysis of Bulk Material Utilizing Analytical Electron Microscopy (Section 2.5.5.2) without Milling Prep

Detailed Sample Report

Customer Sample Number: KULA ASH #1		Reporting Limit : 0.1%	
Sample Description: ASH - KULA, MAUI, HAWAII			
EMSL Sample Number: 042323695-0001		Sample Matrix: Bulk	
Aspect ratio for fiber definition: 3:1		Area of collection filter (mm ²): 1342	
Minimum Length (µm): 0.5		Grid Opening Area (mm ²): 0.0061	
Gravimetric Reduction Ratio: 1.00		Grid Openings Analyzed: 10	
Mass contributed by Largest fiber: N/A		Analyst: A. Burke	
Mineral Type	Stuctures	Weight %	Average Aspect Ratio
Total Regulated Asbestos	None Detected	< 0.1%	
Chrysotile	None Detected	<0.1%	
Amosite	None Detected	<0.1%	
Crocidolite	None Detected	<0.1%	
Tremolite	None Detected	<0.1%	
Actinolite	None Detected	<0.1%	
Anthophyllite	None Detected	<0.1%	
Total Other Elongate Mineral Types	None Detected	< 0.1%	
Undetermined Elongate Mineral	None Detected	-	

Laboratory Manager or Other Approved Signatory

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