



## Lehua Environmental Inc.

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P.O. Box 1018 • Kamuela, Hawaii 96743 • Tel: (808) 494-0365 • E-mail: LehuaEnvironmental@gmail.com

June 14, 2024

California Institute of Technology  
391 S. Holliston Avenue  
Pasadena, CA 91106

Attn: Denise Lu

**Subject: 3<sup>RD</sup> PARTY LEAD ENVIRONMENTAL AIR MONITORING  
CALTECH SUBMILLIMETER OBSERVATORY (CSO) DECOMMISSIONING  
MAUNA KEA, BIG ISLAND, HAWAII**

The purpose of this letter report is to document the activities and findings from Lehua Environmental Inc.'s (LEI's) 3<sup>rd</sup> party lead environmental air monitoring activities completed during lead paint disturbance activities associated with the CSO Decommissioning project located on Mauna Kea, Big Island, Hawaii (Subject Site). The air monitoring activities occurred from April 29, 2024 through May 30, 2024 at the Subject Site.

### ***Background***

Lead-Containing Paint (LCP) and Lead-Based Paint (LBP) were identified at the Subject Site. The Unitek Contracting Group (Contractor) was contracted to furnish labor, equipment and materials to properly clean and dispose of lead paint chips from the work area throughout the lead paint disturbance activities associated with the CSO Decommissioning project at the Subject Site.

### ***Abatement Activities***

The Contractor properly cleaned the lead work area throughout the duration of the lead paint disturbance activities associated with the CSO Decommissioning project at the Subject Site. Following and during the disturbance and removal of lead painted building components from the work area, the Contractor cleaned the work area via HEPA vacuums and hand-picking methods.

Daily field activities are documented in the daily field reports included in Attachment II.



## ***Methodology***

### ***Lead Air Monitoring Activities***

LEI conducted lead environmental air monitoring which included work area samples during the lead paint disturbance work at the Subject Site. Four (4) air samples were collected in and around the active work area during lead paint disturbance work. Air samples were collected using low volume pumps set at 2.0 liters per minute (L/min).

All samples were properly logged and recorded following strict chain of custody procedure and submitted to Hawaii Analytical located in Honolulu, Hawaii for total lead analysis in accordance with NIOSH Method 7082.

### ***Lead Visual Clearance Activities***

LEI personnel conducted visual clearances throughout the duration of the lead paint disturbance activities to ensure the lead paint and associated lead debris did not exit the work area during the CSO decommissioning work. LEI personnel also conducted a lead visual clearance at the end of each work day to confirm no visible lead paint chips and/or debris remained on the ground or other areas surrounding the CSO platform.

## ***Findings***

### ***Lead Environmental Air Monitoring***

Laboratory results indicated that all analyzed environmental air samples collected during lead disturbance activities were below the Occupational Safety and Health Administration (OSHA) action level of 30 micrograms of lead per cubic meter of air, calculated as an 8-hour time-weighted average. A copy of the laboratory results is provided in Attachment I.

### ***Lead Visual Clearance Activities***

The lead visual clearances were successfully completed by LEI personnel at the end of each day's lead paint disturbance activities. LEI personnel confirmed no visible lead paint chips and/or debris were present at the completion of the CSO structure decommissioning.



### ***Limitations***

LEI's findings and conclusions contained herein are professional opinions based solely upon visual observations, laboratory data, and information provided to LEI at the time this study. Opinions stated in this report do not apply to changes that may have occurred after the services were performed.

LEI has performed specified services for this project with the degree of care, skill and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by both LEI and LEI's Client.

This report is intended for the sole use of LEI's Client, exclusively for the project site indicated. LEI's Client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate for satisfying the needs of other users. Release of this report to third-parties will be at the sole risk of Client and/or said user, and LEI shall not be liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

Thank you for allowing us to serve you. Please contact us at (808)494-0365 with any questions.

Respectfully,

**LEHUA ENVIRONMENTAL INC.**

Kamalana Kobayashi  
State of Hawaii Certified Lead Risk Assessor  
Certification #: PB-0132 Expires: 5/16/25

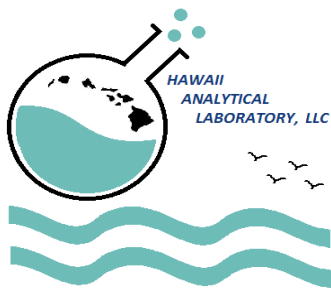
Attachment I: Laboratory Reports

Attachment II: Daily Field Reports

# Attachment I:

## Laboratory Results





# Hawaii Analytical Laboratory ANALYTICAL REPORT

Tuesday, May 7, 2024

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202404826  
**Date Submitted:** 5/6/2024  
**Your Project:** 2024-224, CSO Decommissioning, 4/29/24-4/30/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202433370	042924-C-L1	< 6.9	ug/m3	5/6/2024
Comments				
202433371	042924-C-L2	< 6.9	ug/m3	5/6/2024
Comments				
202433372	042924-C-L3	< 6.9	ug/m3	5/6/2024
Comments				
202433373	042924-C-L4	< 6.9	ug/m3	5/6/2024
Comments				
202433375	043024-C-L1	< 6.9	ug/m3	5/6/2024
Comments				
202433376	043024-C-L2	< 6.9	ug/m3	5/6/2024
Comments				
202433377	043024-C-L3	< 6.9	ug/m3	5/6/2024
Comments				
202433378	043024-C-L4	< 6.9	ug/m3	5/6/2024
Comments				

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on [www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org), in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202404826  
**Date Submitted:** 5/6/2024  
**Your Project:** 2024-224, CSO Decommissioning, 4/29/24-4/30/24

---

**All Quality Control data are acceptable unless otherwise noted.**  
**MRL for lead air is 5ug.**  
**MRL for lead wipe is 10ug.**  
**MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.**

**General Comments**

The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document proficiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

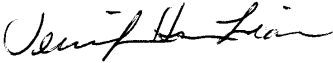
**Results and Symbols Definitions**

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.

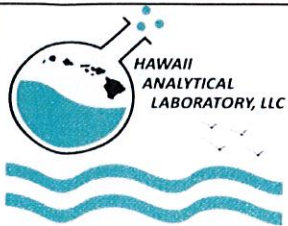
MRL = Method Reporting Limit.



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**Jennifer Hsu Liao**  
**Laboratory Manager**

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3615 Harding Avenue, Suite 308  
Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
Email / Fax : [Lehuaenvironmental@gmail.com](mailto:Lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Purchase Order No. : K. Kobayashi  
Email Invoice To : [Lehuaenvironmental@gmail.com](mailto:Lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☐ 3 WD  
☐ 2 WD  
☒ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Site/Project Name: CSO Decommissioning	Client Project No.: 2024-224	Verbal results? <input type="checkbox"/>	Sampled By & Certif. # : Kama Kobayashi
Special Instructions: Do not analyze blank until further notice		PLM POSITIVE STOP Instructions: <input type="checkbox"/> + stop / SAMPLE <input type="checkbox"/> + stop / LAYER	Lab Report No.: 202404826

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
042924-C-L1	Lead Air Sample	4/29/2024	cassette	720 L	Lead Air		202433370
042924-C-L2	Lead Air Sample	4/29/2024	cassette	720 L	Lead Air		202433371
042924-C-L3	Lead Air Sample	4/29/2024	cassette	720 L	Lead Air		202433372
042924-C-L4	Lead Air Sample	4/29/2024	cassette	720 L	Lead Air		202433373
042924-C-L5 (Blank)	Lead Air Sample	4/29/2024	cassette	720 L	Lead Air		202433374
043024-C-L1	Lead Air Sample	4/30/2024	cassette	720 L	Lead Air		202433375
043024-C-L2	Lead Air Sample	4/30/2024	cassette	720 L	Lead Air		202433376
043024-C-L3	Lead Air Sample	4/30/2024	cassette	720 L	Lead Air		202433377
043024-C-L4	Lead Air Sample	4/30/2024	cassette	720 L	Lead Air		202433378
043024-C-L5 (blank)	Lead Air Sample	4/30/2024	cassette	720 L	Lead Air		202433379
Relinquished By (Print and Sign) Kama Kobayashi		Date/Time 5/1/2024		Received By (Print and Sign) Savannah Newman		Date/Time 05-06-24 10:16 RCVD	

\*Sample description can be paint chips, concrete, specific sample collection location, etc...

If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.

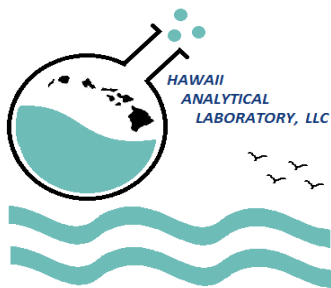
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

\*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up

awb#: 173-91412234

Page: \_\_\_\_\_ of \_\_\_\_\_



# Hawaii Analytical Laboratory ANALYTICAL REPORT

Monday, May 13, 2024

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202404955  
**Date Submitted:** 5/8/2024  
**Your Project:** CSO Decommissioning, 5/1/24-5/3/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202434533	CSO 050124 L1	< 6.1	ug/m3	5/13/2024
Comments				
202434534	CSO 050124 L2	< 6.1	ug/m3	5/13/2024
Comments				
202434535	CSO 050124 L3	< 6.1	ug/m3	5/13/2024
Comments				
202434536	CSO 050124 L4	< 6.1	ug/m3	5/13/2024
Comments				
202434538	CSO 050224 L1	< 6.3	ug/m3	5/13/2024
Comments				
202434539	CSO 050224 L2	< 6.3	ug/m3	5/13/2024
Comments				
202434540	CSO 050224 L3	< 6.3	ug/m3	5/13/2024
Comments				
202434541	CSO 050224 L4	< 6.3	ug/m3	5/13/2024
Comments				

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Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

Phone Number: (808)494-0365  
Facsimile:  
Email: lehuaenvironmental@gmail.com

Lab Job No: 202404955  
Date Submitted: 5/8/2024  
Your Project: CSO Decommissioning, 5/1/24-5/3/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202434543	CSO 050324 L1	< 9.1	ug/m3	5/13/2024
Comments				
202434544	CSO 050324 L2	< 9.1	ug/m3	5/13/2024
Comments				
202434545	CSO 050324 L3	< 9.1	ug/m3	5/13/2024
Comments				
202434546	CSO 050324 L4	< 9.1	ug/m3	5/13/2024
Comments				

All Quality Control data are acceptable unless otherwise noted.

MRL for lead air is 5ug.

MRL for lead wipe is 10ug.

MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.

### General Comments

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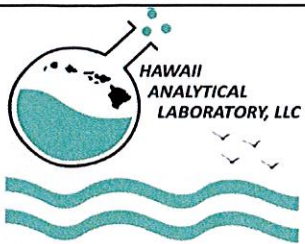
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**Jennifer Hsu Liao**  
**Laboratory Manager**

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☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [nicoleg@lehuaenv.com](mailto:nicoleg@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning ☐

Sampled By & Certif. # :  
Nicole Garaganza-Tengan

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP? ☐

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

Verbal results? ☐

Lab Report No.:

202404955

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
1	CSO 050124 L1	5/1/2024	Cassette	820 L	Lead Air		202434533
2	CSO 050124 L2	5/1/2024	Cassette	820 L	Lead Air		202434534
3	CSO 050124 L3	5/1/2024	Cassette	820 L	Lead Air		202434535
4	CSO 050124 L4	5/1/2024	Cassette	820 L	Lead Air		202434536
5	CSO 050124 BLANK	5/1/2024	Cassette	BLANK	BLANK		202434537
6	CSO 050224 L1	5/2/2024	Cassette	800 L	Lead Air		202434538
7	CSO 050224 L2	5/2/2024	Cassette	800 L	Lead Air		202434539
8	CSO 050224 L3	5/2/2024	Cassette	800 L	Lead Air		202434540
9	CSO 050224 L4	5/2/2024	Cassette	800 L	Lead Air		202434541
10	CSO 050224 BLANK	5/2/2024	Cassette	BLANK	BLANK		202434542
11	CSO 050324 L1	5/3/2024	Cassette	550 L	Lead Air		202434543
12	CSO 050324 L2	5/3/2024	Cassette	550 L	Lead Air		202434544
13	CSO 050324 L3	5/3/2024	Cassette	550 L	Lead Air		202434545
14	CSO 050324 L4	5/3/2024	Cassette	550 L	Lead Air		202434546
15	CSO 050324 BLANK	5/3/2024	Cassette	BLANK	BLANK		202434547

Relinquished By (Print and Sign)

Date/Time

Received By (Print and Sign)

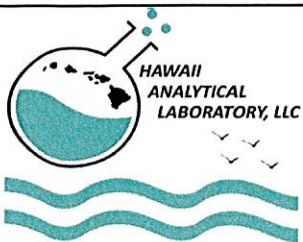
Date/Time

Nicole Garaganza-Tengan

5/7/2024 17:15

Trinidad Shutt

05-08-24 A10:43 RCVD



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Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

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Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [nicoleg@lehuaenv.com](mailto:nicoleg@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning ☐

Sampled By & Certif. # :  
Nicole Garaganza-Tengan

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

Verbal results?

☐

**Lab Report No.:**

**202404955**

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:

\*Sample description can be paint chips, concrete, specific sample collection location, etc...

If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.

All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

\*Required fields, failure to complete these fields may result in a delay in your samples being processed.

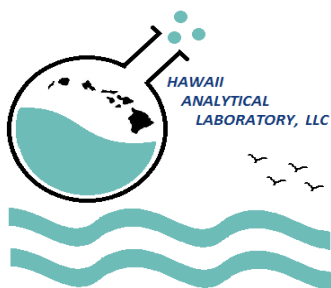
☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up  
awb#: 173-.....91617256

Page: \_\_\_\_\_ of \_\_\_\_\_

Trinidad Shutt

*Trinidad Shutt*

05-08-24 A10:42 RCVD



# Hawaii Analytical Laboratory ANALYTICAL REPORT

Thursday, May 23, 2024

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405274  
**Date Submitted:** 5/20/2024  
**Your Project:** CSO Decommissioning, 5/13/24-5/16/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202436179	CSO 5/13/24 L1	< 7.6	ug/m3	5/23/2024
Comments				
202436180	CSO 5/13/24 L2	< 7.6	ug/m3	5/23/2024
Comments				
202436181	CSO 5/13/24 L3	< 7.6	ug/m3	5/23/2024
Comments				
202436182	CSO 5/13/24 L4	< 7.6	ug/m3	5/23/2024
Comments				
202436184	CSO 5/14/24 L1	< 8.3	ug/m3	5/23/2024
Comments				
202436185	CSO 5/14/24 L2	< 8.3	ug/m3	5/23/2024
Comments				
202436186	CSO 5/14/24 L3	< 8.3	ug/m3	5/23/2024
Comments				
202436187	CSO 5/14/24 L4	< 8.3	ug/m3	5/23/2024
Comments				

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Lehua Environmental Inc.  
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**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405274  
**Date Submitted:** 5/20/2024  
**Your Project:** CSO Decommissioning, 5/13/24-5/16/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202436189	CSO 5/15/24 L1	< 6.9	ug/m3	5/23/2024
Comments				
202436190	CSO 5/15/24 L2	< 6.9	ug/m3	5/23/2024
Comments				
202436191	CSO 5/15/24 L3	< 6.9	ug/m3	5/23/2024
Comments				
202436192	CSO 5/15/24 L4	< 6.9	ug/m3	5/23/2024
Comments				
202436194	CSO 5/16/24 L1	< 8.3	ug/m3	5/23/2024
Comments				
202436195	CSO 5/16/24 L2	< 8.3	ug/m3	5/23/2024
Comments				
202436196	CSO 5/16/24 L3	< 8.3	ug/m3	5/23/2024
Comments				
202436197	CSO 5/16/24 L4	< 8.3	ug/m3	5/23/2024
Comments				

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Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405274  
**Date Submitted:** 5/20/2024  
**Your Project:** CSO Decommissioning, 5/13/24-5/16/24

---

**All Quality Control data are acceptable unless otherwise noted.**

**MRL for lead air is 5ug.**

**MRL for lead wipe is 10ug.**

**MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.**

**General Comments**

The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document proficiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

**Results and Symbols Definitions**

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.

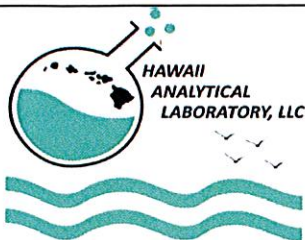
MRL = Method Reporting Limit.



---

**Eva Skogsberg**  
**Laboratory Supervisor**

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on [www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org), in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015



3615 Harding Avenue, Suite 308  
Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning 5/13/24 - 5/16/24

Sampled By & Certif. # :  
Calvin Arca

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

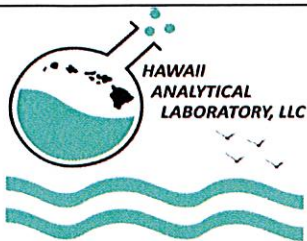
Verbal results?

☐

**Lab Report No.:**

202405274

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
1	CSO 5/13/24 L1	5/13/2024	cassette	660 L	Lead Air		202436179
2	CSO 5/13/24 L2	5/13/2024	cassette	660 L	Lead Air		202436180
3	CSO 5/13/24 L3	5/13/2024	cassette	660 L	Lead Air		202436181
4	CSO 5/13/24 L4	5/13/2024	cassette	660 L	Lead Air		202436182
5	CSO 5/13/24 Blank	5/13/2024	cassette	Blank	Blank		202436183
6	CSO 5/14/24 L1	5/14/2024	cassette	600 L	Lead Air		202436184
7	CSO 5/14/24 L2	5/14/2024	cassette	600 L	Lead Air		202436185
8	CSO 5/14/24 L3	5/14/2024	cassette	600 L	Lead Air		202436186
9	CSO 5/14/24 L4	5/14/2024	cassette	600 L	Lead Air		202436187
10	CSO 5/14/24 Blank	5/14/2024	cassette	Blank	Blank		202436188
11	CSO 5/15/24 L1	5/15/2024	cassette	720 L	Lead Air		202436189
12	CSO 5/15/24 L2	5/15/2024	cassette	720 L	Lead Air		202436190
13	CSO 5/15/24 L3	5/15/2024	cassette	720 L	Lead Air		202436191
14	CSO 5/15/24 L4	5/15/2024	cassette	720 L	Lead Air		202436192
15	CSO 5/15/24 Blank	5/15/2024	cassette	Blank	Blank		202436193



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Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning 5/13/24 - 5/16/24

Sampled By & Certif. # :  
Calvin Arca

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

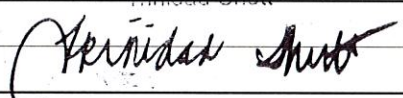
- ☐ + stop / SAMPLE  
☐ + stop / LAYER

Verbal results?

☐

**Lab Report No.:**

202405274

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
16	CSO 5/16/24 L1	5/16/2024	cassette	600 L	Lead Air		202436194
17	CSO 5/16/24 L2	5/16/2024	cassette	600 L	Lead Air		202436195
18	CSO 5/16/24 L3	5/16/2024	cassette	600 L	Lead Air		202436196
19	CSO 5/16/24 L4	5/16/2024	cassette	600 L	Lead Air		202436197
20	CSO 5/16/24 Blank	5/16/2024	cassette	Blank	Blank		202436198
Relinquished By (Print and Sign)		Date/Time		Received By (Print and Sign)		Date/Time	
Calvin Arca		1/28/2024 12:00				05-20-24 A09:24 RCVD	

\*Sample description can be paint chips, concrete, specific sample collection location, etc...

If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.

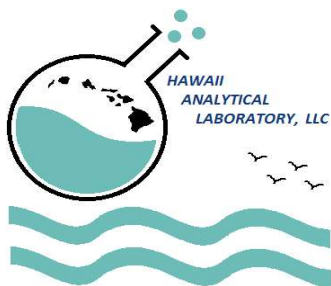
All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

\*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up  
awb#: 173-39175625

Page: \_\_\_\_\_ of \_\_\_\_\_





# Hawaii Analytical Laboratory ANALYTICAL REPORT

Friday, May 31, 2024

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405578  
**Date Submitted:** 5/28/2024  
**Project Name:** CSO Decommissioning, 5/20/24-5/24/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202437662	CSO 5/20/24 L1	< 6.4	ug/m3	5/29/2024
Comments				
202437663	CSO 5/20/24 L2	< 6.4	ug/m3	5/29/2024
Comments				
202437664	CSO 5/20/24 L3	< 6.4	ug/m3	5/29/2024
Comments				
202437665	CSO 5/20/24 L4	< 6.4	ug/m3	5/29/2024
Comments				
202437667	CSO 5/21/24 L1	< 5.2	ug/m3	5/29/2024
Comments				
202437668	CSO 5/21/24 L2	< 5.2	ug/m3	5/29/2024
Comments				
202437669	CSO 5/21/24 L3	< 5.2	ug/m3	5/29/2024
Comments				
202437670	CSO 5/21/24 L4	< 5.2	ug/m3	5/29/2024
Comments				
202437672	CSO 5/22/24 L1	< 6.4	ug/m3	5/29/2024
Comments				

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3615 Harding Avenue, Ste. 308, Honolulu, HI 96816 - Telephone: (808) 735-0422 - Fax: (808) 735-0047

Page 1 of 3

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405578  
**Date Submitted:** 5/28/2024  
**Project Name:** CSO Decommissioning, 5/20/24-5/24/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample ID / Description	Results	Units	Date Analyzed
202437673	CSO 5/22/24 L2	< 6.4	ug/m3	5/29/2024
Comments				
202437674	CSO 5/22/24 L3	< 6.4	ug/m3	5/29/2024
Comments				
202437675	CSO 5/22/24 L4	< 6.4	ug/m3	5/29/2024
Comments				
202437677	CSO 5/23/24 L1	< 6	ug/m3	5/29/2024
Comments				
202437678	CSO 5/23/24 L2	< 6	ug/m3	5/29/2024
Comments				
202437679	CSO 5/23/24 L3	< 6	ug/m3	5/29/2024
Comments				
202437680	CSO 5/23/24 L4	< 6	ug/m3	5/29/2024
Comments				
202437682	CSO 5/24/24 L1	< 8.3	ug/m3	5/29/2024
Comments				
202437683	CSO 5/24/24 L2	< 8.3	ug/m3	5/29/2024
Comments				
202437684	CSO 5/24/24 L3	< 8.3	ug/m3	5/29/2024
Comments				
202437685	CSO 5/24/24 L4	< 8.3	ug/m3	5/29/2024
Comments				

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3615 Harding Avenue, Ste. 308, Honolulu, HI 96816 - Telephone: (808) 735-0422 - Fax: (808) 735-0047

Page 2 of 3

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405578  
**Date Submitted:** 5/28/2024  
**Project Name:** CSO Decommissioning, 5/20/24-5/24/24

---

**All Quality Control data are acceptable unless otherwise noted.**

**MRL for lead air is 5ug.**

**MRL for lead wipe is 10ug.**

**MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.**

**General Comments**

The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document proficiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

**Results and Symbols Definitions**

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.

MRL = Method Reporting Limit.



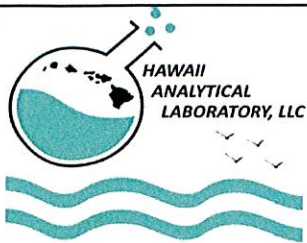
---

**Anne Antin**  
**Quality Control Manager**

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on [www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org), in accordance with the recognized ISO/ IEC 17025:2017. AIHA LAP, LLC is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 - 20181015

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Page 3 of 3



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Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning 5/20/24 - 5/24/24

Sampled By & Certif. # :  
Calvin Arca

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

Verbal results?

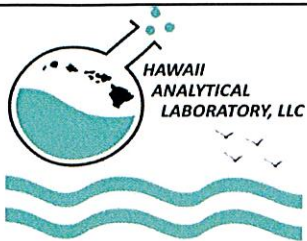
☐

**Lab Report No.:**

202405578

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
1	CSO 5/20/24 L1	5/20/2024	cassette	780 L	Lead Air		202437662
2	CSO 5/20/24 L2	5/20/2024	cassette	780 L	Lead Air		202437663
3	CSO 5/20/24 L3	5/20/2024	cassette	780 L	Lead Air		202437664
4	CSO 5/20/24 L4	5/20/2024	cassette	780 L	Lead Air		202437665
5	CSO 5/20/24 Blank	5/20/2024	cassette	Blank	Blank		202437666
6	CSO 5/21/24 L1	5/21/2024	cassette	960 L	Lead Air		202437667
7	CSO 5/21/24 L2	5/21/2024	cassette	960 L	Lead Air		202437668
8	CSO 5/21/24 L3	5/21/2024	cassette	960 L	Lead Air		202437669
9	CSO 5/21/24 L4	5/21/2024	cassette	960 L	Lead Air		202437670
10	CSO 5/21/24 Blank	5/21/2024	cassette	Blank	Blank		202437671
11	CSO 5/22/24 L1	5/22/2024	cassette	780 L	Lead Air		202437672
12	CSO 5/22/24 L2	5/22/2024	cassette	780 L	Lead Air		202437673
13	CSO 5/22/24 L3	5/22/2024	cassette	780 L	Lead Air		202437674
14	CSO 5/22/24 L4	5/22/2024	cassette	780 L	Lead Air		202437675
15	CSO 5/22/24 Blank	5/22/2024	cassette	Blank	Blank		202437676





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Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning 5/20/24 - 5/24/24

Sampled By & Certif. # :  
Calvin Arca

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

Verbal results?

☐

**Lab Report No.:**

202405578

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
16	CSO 5/23/24 L1	5/23/2024	cassette	840 L	Lead Air		202437677
17	CSO 5/23/24 L2	5/23/2024	cassette	840 L	Lead Air		202437678
18	CSO 5/23/24 L3	5/23/2024	cassette	840 L	Lead Air		202437679
19	CSO 5/23/24 L4	5/23/2024	cassette	840 L	Lead Air		202437680
20	CSO 5/23/24 Blank	5/23/2024	cassette	Blank	Blank		202437681
21	CSO 5/24/24 L1	5/24/2024	cassette	600 L	Lead Air		202437682
22	CSO 5/24/24 L2	5/24/2024	cassette	600 L	Lead Air		202437683
23	CSO 5/24/24 L3	5/24/2024	cassette	600 L	Lead Air		202437684
24	CSO 5/24/24 L4	5/24/2024	cassette	600 L	Lead Air		202437685
25	CSO 5/24/24 Blank	5/24/2024	cassette	Blank	Blank		202437686
Relinquished By (Print and Sign)		Date/Time		Received By (Print and Sign)		Date/Time	
Calvin Arca		1/28/2024 12:00		Savannah Newman <i>Savannah Newman</i>		5/28/24 1:00pm	

\*Sample description can be paint chips, concrete, specific sample collection location, etc...

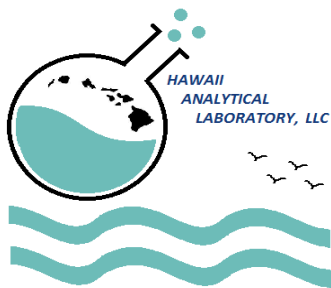
If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.

All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

\*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up  
awb#: 173-39175614

Page: \_\_\_\_\_ of \_\_\_\_\_



# Hawaii Analytical Laboratory ANALYTICAL REPORT

Tuesday, June 11, 2024

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405887  
**Date Submitted:** 6/6/2024  
**Your Project:** CSO Decommissioning, 5/28/24-5/30/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202439776	CSO 5/28/24 L1	< 8.3	ug/m3	6/10/2024
Comments				
202439777	CSO 5/28/24 L2	< 8.3	ug/m3	6/10/2024
Comments				
202439778	CSO 5/28/24 L3	< 8.3	ug/m3	6/10/2024
Comments				
202439779	CSO 5/28/24 L4	< 8.3	ug/m3	6/10/2024
Comments				
202439781	CSO 2/29/24 L1	< 6.9	ug/m3	6/10/2024
Comments				
202439782	CSO 2/29/24 L2	< 6.9	ug/m3	6/10/2024
Comments				
202439783	CSO 2/29/24 L3	< 6.9	ug/m3	6/10/2024
Comments				
202439784	CSO 2/29/24 L4	< 6.9	ug/m3	6/10/2024
Comments				

Hawaii Analytical Laboratory (101812) is accredited by the AIHA LAP, LLC in the EMLAP, IHLAP, and ELLAP programs for the scope of work listed on [www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org), in accordance with the recognized ISO/ IEC 17025:2005. AIHA is a NLLAP recognized accrediting body. Controlled doc.: Lead Report, rev. 3 – 20181015

Mr. Kama Kobayashi  
Lehua Environmental Inc.  
P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405887  
**Date Submitted:** 6/6/2024  
**Your Project:** CSO Decommissioning, 5/28/24-5/30/24

## Air - Lead

NIOSH Method: 7082m LEAD by FAAS

Sample No.	Your Sample Description	Results	Units	Date Analyzed
202439786	CSO 5/30/24 L1	< 6	ug/m3	6/10/2024
Comments				
202439787	CSO 5/30/24 L2	< 6	ug/m3	6/10/2024
Comments				
202439788	CSO 5/30/24 L3	< 6	ug/m3	6/10/2024
Comments				
202439789	CSO 5/30/24 L4	< 6	ug/m3	6/10/2024
Comments				

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Mr. Kama Kobayashi  
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P.O. Box 1018  
Kamuela HI 96743

**Phone Number:** (808)494-0365  
**Facsimile:**  
**Email:** lehuaenvironmental@gmail.com

**Lab Job No:** 202405887  
**Date Submitted:** 6/6/2024  
**Your Project:** CSO Decommissioning, 5/28/24-5/30/24

---

**All Quality Control data are acceptable unless otherwise noted.**  
**MRL for lead air is 5ug.**  
**MRL for lead wipe is 10ug.**  
**MRL for lead paint or soil is 40 mg/kg for a 0.25g sample.**

**General Comments**

The sample[s] analysis subject of this analytical report were conducted in general accordance with the procedures associated with the "analytical method" referenced above. Modifications to this methodology may have been made based upon the analyst's professional judgment and / or sample matrix effects encountered. The analysis of sample relates only to the sample analyzed, and may or may not be representative of the original source of the material submitted for our analysis. All analysts participate in interlaboratory quality control testing to continuously document proficiency. This report is not to be duplicated except in full without the expressed written permission of Hawaii Analytical Laboratory. This report should not be construed as an endorsement for a product or a service by the AIHA LAP, LLC or any affiliated organizations. Sample and associated sampling / collection data is reported as provided by client. TWA values have been calculated based on information supplied by the client that the laboratory has not independently verified. Results have not been corrected for blank determinations unless noted in remarks. Unless otherwise indicated the sample condition at the time of receipt was acceptable.

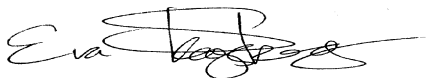
**Results and Symbols Definitions**

> This testing result is greater than the numerical value listed.

< This testing result is less than the numerical value listed.

# = Analytical methods marked with an "#" are not within our AIHA LAP, LLC Scope of Accreditation.

MRL = Method Reporting Limit.

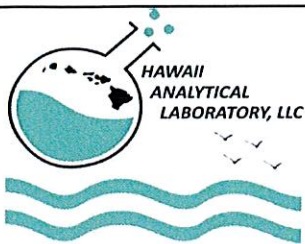


---

**Eva Skogsberg**  
**Laboratory Supervisor**

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3615 Harding Avenue, Suite 308  
Honolulu, HI 96816  
Ph: 808-735-0422 - Fax: 808-735-0047  
<https://analyzehawaii.com>

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

Client Project No.:

Site/Project Name:

CSO Decommissioning 5/28/24 - 5/30/24



Sampled By & Certif. # :  
Calvin Arca

Special Instructions:

Do Not Analyze Blank Until Further Notice

PLM POSITIVE STOP?

- ☐ + stop / SAMPLE  
☐ + stop / LAYER

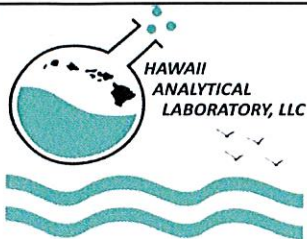
Verbal results?



**Lab Report No.:**

202405887

Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
1	CSO 5/28/24 L1	5/28/2024	cassette	600 L	Lead Air		202439776
2	CSO 5/28/24 L2	5/28/2024	cassette	600 L	Lead Air		202439777
3	CSO 5/28/24 L3	5/28/2024	cassette	600 L	Lead Air		202439778
4	CSO 5/28/24 L4	5/28/2024	cassette	600 L	Lead Air		202439779
5	CSO 5/28/24 Blank	5/28/2024	cassette	Blank	Blank		202439780
6	CSO 5/29/24 L1	5/29/2024	cassette	720 L	Lead Air		202439781
7	CSO 5/29/24 L2	5/29/2024	cassette	720 L	Lead Air		202439782
8	CSO 5/29/24 L3	5/29/2024	cassette	720 L	Lead Air		202439783
9	CSO 5/29/24 L4	5/29/2024	cassette	720 L	Lead Air		202439784
10	CSO 5/29/24 Blank	5/29/2024	cassette	Blank	Blank		202439785
11	CSO 5/30/24 L1	5/30/2024	cassette	840 L	Lead Air		202439786
12	CSO 5/30/24 L2	5/30/2024	cassette	840 L	Lead Air		202439787



3615 Harding Avenue, Suite 308  
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<https://analyzehawaii.com>

**Need Results By\*:**

- ☐ 5 Working Days (WD)  
☐ 4 WD  
☒ 3 WD  
☐ 2 WD  
☐ 24 hours  
☐ 6 hours or less  
☐ 4 hours or less  
☐ 1-2 hours

☐ New Client?

Report To\* : Kama Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* : 808-494-0365  
Report results to : K. Kobayashi  
via email or fax : [calvin@lehuaenv.com](mailto:calvin@lehuaenv.com)  
[lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Invoice To\* : Kamalana Kobayashi  
Company : Lehua Environmental Inc.  
Address\* : PO BOX 1018  
Kamuela, Hawaii 96743  
Phone / Cell No.\* :  
Purchase Order No. :  
Email Invoice To : [lehuaenvironmental@gmail.com](mailto:lehuaenvironmental@gmail.com)

Client Project No.:		Site/Project Name: CSO Decommissioning 5/28/24 - 5/30/24 <input type="checkbox"/>			Sampled By & Certif. # : Calvin Arca		
Special Instructions: Do Not Analyze Blank Until Further Notice		PLM POSITIVE STOP? <input type="checkbox"/> + stop / SAMPLE <input type="checkbox"/> + stop / LAYER		Verbal results? <input type="checkbox"/>		Lab Report No.: 202405887	
Sample ID	Sample Description*	Date Sampled* (mm/dd/yy)	Collection Medium	Sample Area / Air Volume	Analysis Requested*	Method Reference	Lab Sample(s) No.:
13	CSO 5/30/24 L3	5/30/2024	cassette	840 L	Lead Air		202439788
14	CSO 5/30/24 L4	5/30/2024	cassette	840 L	Lead Air		202439789
15	CSO 5/30/24 Blank	5/30/2024	cassette	Blank	Blank		202439790
Relinquished By (Print and Sign)		Date/Time		Received By (Print and Sign)		Date/Time	
Calvin Arca		1/28/2024 12:00		Haley Leavitt <i>Haley Leavitt</i>		06-24 P02:21 RCVD	

\*Sample description can be paint chips, concrete, specific sample collection location, etc...

If matrix is 'soil', please specify if it is a FOREIGN SOIL SAMPLE (outside Hawaii) in the comment section.

All samples submitted are subject to Hawaii Analytical Laboratory terms and conditions.

\*Required fields, failure to complete these fields may result in a delay in your samples being processed.

☒ via HAC ☐ via USPS ☐ via drop box ☐ via FedEx ☐ via pick up  
awb# 173-39175651

Page: \_\_\_\_\_ of \_\_\_\_\_

## Attachment II:

### Daily Field Reports

Project: Caltech Submillimeter Observatory Decommissioning

Page: 1 of 1

Date: \_\_\_\_\_

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	LBP/LCP debris		

Time	Description
10:00 am	Arrive onsite, calibrate and setup pumps around perimeter of work area. Northwest Demo (NWD) to start the demolition of the observatory utilizing an excavator with sheer attachment.
11:30 am	NWD starts demolition of the exterior metal surfaces of the observatory. Unitek on standby to conduct paint chip cleanup during and after the lead paint disturbance activities.
2:00 pm	NWD continues the demolition of the observatory metal surfaces. Visible debris is controlled to work area. Demoed metal building materials are placed inside the middle of the observatory floor.
3:00 pm	NWD stops the demolition for the day. Unitek crew conducts lead paint chip cleanup with a HEPA vacuum and hand picking methods.
4:00 pm	Unitex completes the lead paint chip clean up of the work area. Lehua Env. (LEI) conducts a visual inspection of the site. LEI approves the cleanup and no visible paint chips remain on the ground surfaces of the work area. Pumps are turned off and calibrated.
LEI Staff: K. Kobayashi	
Date: 04/29/24	



**Lehua Environmental Consultants, LLC****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	4/29/2024
<b>Client:</b>	Caltech	<b>Sampled By:</b>	K. Kobayashi
<b>Project Site:</b>	Caltech Submillimeter Observatory Decommissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
042924-C-L1	OWA	10:00	16:00	2	2	2	360	720 L

Sample Location: Near storage bldg.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
042924-C-L2	OWA	10:00	16:00	2	2	2	360	720 L

Sample Location: Entrance to job site. South side of driveway

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
042924-C-L3	OWA	10:00	16:00	2	2	2	360	720 L

Sample Location: Southwest corner of job site.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
042924-C-L4	OWA	10:00	16:00	2	2	2	360	720 L

Sample Location: Northwest corner of job site.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
042924-C-L5	FB	NA	NA	NA	NA	NA	NA	NA

Sample Location: NA

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank, NA - Not applicable

Project: Caltech Submillimeter Observatory Decommissioning

Page: 1 of 1

Date: 04/30/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	LBP/LCP debris		

Time	Description
7:00 am	Arrive onsite, calibrate and setup pumps around perimeter of work area. Northwest Demo (NWD) will continue demolition of the observatory utilizing the excavator with sheer attachment.
9:30 am	NWD continues demo work. Unitek on standby to conduct paint chip cleanup during and after the lead paint disturbance activities.
11:00 am	NWD excavator leaks hydraulic fluid after a hose bursts on the machine. All haul out trucks called off for the day. Unitek, NWD and GBI clean up the leak and place absorbent litter and pads on ground in area of the leak.
1:00 pm	Continued cleanup of hydraulic leak area continues. Pumps turned off and calibrated.
2:00 pm	Unitex and NWD continue cleanup of hydraulic leak on asphalt surface.
4:00 pm	Site work completed for the day. LEI conducts visual clearance of work area and no visible paint chips observed.
LEI Staff: K. Kobayashi	
Date: 04/30/24	

**Lehua Environmental Consultants, LLC****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	4/30/2024
<b>Client:</b>	Caltech	<b>Sampled By:</b>	K. Kobayashi
<b>Project Site:</b>	Caltech Submillimeter Observatory Decommissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
043024-C-L1	OWA	7:00	13:00	2	2	2	360	720 L

Sample Location: Near storage bldg.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
043024-C-L2	OWA	7:00	13:00	2	2	2	360	720 L

Sample Location: Entrance to job site. South side of driveway

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
043024-C-L3	OWA	7:00	13:00	2	2	2	360	720 L

Sample Location: Southwest corner of job site.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
043024-C-L4	OWA	7:00	13:00	2	2	2	360	720 L

Sample Location: Northwest corner of job site.

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
043024-C-L5	FB	NA	NA	NA	NA	NA	NA	NA

Sample Location: NA

<b>Analyte:</b> (Select one)	Asbestos	X Lead	Other: _____
---------------------------------	----------	--------	--------------

\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank, NA - Not applicable

Project: Caltech Submillimeter Observatory DecommissioningPage: 1 of 2Date: 05/01/24


## Scheduled Activity


Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	LBP/ LCP debris		

Time	Description
7:30 am	Arrived on site. North West Demo (NWD) getting machines into position to begin demo of observatory. At 7:55am I calibrated 4 pumps for lead air monitoring and set up around the perimeter of the work area. Unitek on site to assist in clean up of debris throughout the demo process.
8:15 am	NWD began demo on observatory interior using the high reach excavator and snipper attachment. The first 2 trucks to haul out debris arrived and on standby. All debris will be contained within the exterior shell of the observatory.
8:45 am	Demo work put on pause and NWD started sorting through debris pile and separating out the metal. Dust/ paint chips under control and staying within the exterior shell. Water truck is on standby for dust control.
9:15 am	Sorting has finished and trucks are ready to be loaded. Unitek placed 6-mil poly plastic on the ground of the loading area to contain any fallen debris during the loading process. The first truck was loaded with metal debris. At 9:55am NWD started loading the second truck. Unitek cleaned off the plastic between trucks. Barely any dust generate during loading process.
10:45 am	The last 2 trucks arrived. NWD began loading up regular debris. Loose debris creating dust, loading stopped for water truck to shoot water for dust control. Water not sprayed in excess to create any run off. By 11:30 pm both trucks left job site. Unitek began clean up around the loading area.
12:30 pm	NWD began exposing the hydraulic pumps with the high reach snipper to expose the bolts and cables. The LBP metal frame being disturbed but paint chips are being contained within the shell area. Unitek cleaning up larger pieces of metal that fell onto the ground in between the cutting process.
2:10 pm	NDW cut the cables that support the shutter door of the observatory. Work for the day finished once cables were cut. Unitek began clean up of all areas around the observatory.
LEI Staff: Nicole Garaganza-Tengan	
Date: 05/01/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/01/24
<b>Client:</b>		<b>Sampled By:</b>	Nicole Garaganza-Tengan
<b>Project Site:</b>	Caltech Submillimeter Observatory		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050124 L1 	OWA	7:55 am	2:45 pm	2	2	2	410	820 L
Sample Location: Near large storage shed								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050124 L2 	OWA	7:55 am	2:45 pm	2	2	2	410	820 L
Sample Location: South side of driveway entrance to job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050124 L3	OWA	7:55 am	2:45 pm	2	2	2	410	820 L
Sample Location: South-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050124 L4	OWA	7:55 am	2:45 pm	2	2	2	410	820 L
Sample Location: North-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Caltech Submillimeter Observatory DecommissioningPage: 1 of 2Date: 05/02/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	LBP/ LCP debris		

Time	Description
8:00 am	Arrived on site. I calibrated 4 pumps for lead air monitoring and set up around the work area. As discussed in the morning meeting, NWD will start with removing the 2 hydraulic pumps located on both sides of the shutter door opening. Unitek removed the plastic inside the shell covering the debris. No trucks will be coming up to the summit today.
8:30 am	NWD began cutting away at the metal frame to further expose the hydraulic pumps. All paint chips being contained inside the shell. Once the pumps were exposed, they'll cut the final shutter cables. On the ground, Unitek and Good Fellow (GBI) prepped area with plastic of where the pumps will be placed and wrapped.
9:45 am	Bolts of the first pump were removed and NWD began removing the pump from its upright position. Plastic laid on the platform to protect area from any hydraulic fluid leaks. NWD then tied up pump for lifting and carefully lifted pump over to the staged area. Once placed, Unitek began wrapping pump with 2 layers of plastic. Oil pads were placed underneath pump to soak up any fluid that may leak out.
10:15 am	The process was repeated again for second hydraulic pump. Both pumps were moved and staged on the west side of the observatory on the concrete pad. Plastic laid beneath for extra precaution of any leaks. No leaks or spill occurred during the entire process. Unitek did a quick clean up around the observatory.
12:00 pm	NWD switched attachments to the grabber on the high reach machine. For the rest of the day, they'll be pulling down all the wood floors and insulation within the framing. Water getting sprayed before start of demo for dust control.
12:30 pm	Hydraulic hose on high reach began to leak fluid, and work stopped. Leak was contained right away. NWD working on fixing hose line. Unitek did a quick clean up around work area.
1:00 pm	Hose was fixed, and NWD continued with demo. Water sprayed again for dust control.
LEI Staff: Nicole Garaganza-Tengan	
Date: 05/02/24	

Page: 2 of 2  
Project: Caltech Submillimeter Observatory Decommissioning Date: 05/02/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	LBP/ LCP debris		

Time	Description
1:45 pm	The hydraulic hose leaked again, and work stopped. The leak was minimal and contained right away. Shortly after the hose was fixed, work ended for the day. Unitek began cleaning with HEPA vacuum and picking up paint chips around the observatory.
2:40 pm	Unitek finished cleaning and I did a visual walk through. Plastic was placed over the debris and secured for the night. I collected and calibrated pumps.
3:00 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 05/02/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/02/24
<b>Client:</b>		<b>Sampled By:</b>	Nicole Garaganza-Tengan
<b>Project Site:</b>	Caltech Submillimeter Observatory		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050224 L1 +	OWA	8:00 am	2:40 pm	2	2	2	400	800 L
Sample Location: Near large storage shed								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050224 L2 +	OWA	8:00 am	2:40 pm	2	2	2	400	800 L
Sample Location: South side of driveway entrance to job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050224 L3	OWA	8:00 am	2:40 pm	2	2	2	400	800 L
Sample Location: South-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050224 L4	OWA	8:00 am	2:40 pm	2	2	2	400	800 L
Sample Location: North-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank



Project: Caltech Submillimeter Observatory DecommissioningPage: 1 of 1Date: 05/03/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	LBP/ LCP debris		

Time	Description
7:50 am	Arrived on site. I calibrated 4 pumps for lead air monitoring and set up around the work area. NWD waiting for trucks to arrive and will start loading demo debris. Plan is to remove all demo debris as high winds are in the forecast over the weekend/ upcoming week.
8:30 am	Trucks still have not arrived, NWD started pulling down loose pieces of the exterior metal shell that could be picked up during the high winds. Water strayed prior to work for dust control. Unitek did a walk through of areas outside of the roped area in case any metal debris make it out there.
9:30 am	The trucks have made it up to the observatory. Before loading begins, water got sprayed over debris to help keep dust down during the loading process. Unitek also laid plastic on the ground in the loading area.
10:00 am	The first 2 trucks have been loaded. Unitek cleaned loading area in between trucks. NWD will continue with demo to accumulate enough debris for the last 2 trucks.
11:45 am	The last 2 trucks were loaded and left job site. NWD brought down the hydraulic crane and placed it in front of the storage shed. Oil pads were placed under crane to contain a small fluid leak. UHM truck will come to remove the crane and take it down to HP. Unitek started cleaning around the observatory with HEPA vacuum and picking up paint chips.
12:25 pm	Unitek finished cleaning and we both did a visual walk through around the whole job site. Plastic was laid over inside the shell to cover whatever debris is left over. We secured the plastic well so that it would with stand the high winds. NWD position the observatory to also shelter the debris inside from the high winds. I collected and calibrated my pumps.
12:40 pm	Left job site.
LEI Staff: Nicole Garaganza-Tengan	
Date: 05/03/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/03/24
<b>Client:</b>		<b>Sampled By:</b>	Nicole Garaganza-Tengan
<b>Project Site:</b>	Caltech Submillimeter Observatory		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050324 L1 +	OWA	7:50 am	12:25 pm +	2	2	2	275	550 L
Sample Location: Near large storage shed								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050324 L2 +	OWA	7:50 am	12:25 pm +	2	2	2	275	550 L
Sample Location: South side of driveway entrance to job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050324 L3	OWA	7:50 am	12:25 pm	2	2	2	275	550 L
Sample Location: South-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 050324 L4	OWA	7:50 am	12:25 pm	2	2	2	275	550 L
Sample Location: North-west corner of job site								
<b>Analyte:</b> (select one)		<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____						

\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioning

Page: 1 of 1

Date: 05/06/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint		

Time	Description
7:30 am	Calvin arrive at Hale Pohaku to meet other parties involved with Decommissioning. Main people are Unitek (Jeffy) and Northwest Demo. Discussed plans and forecast for work for the week.
10:30 am	Crews arrived at CSO. No paint chips seen around structure. Multiple crew members from different companies started sweeping and throwing debris into bottom dip of Telescope structure. No paint scraping occurred during this day due to high winds. At site, plastic was laid on the bottom dip of the structure with debris on top of it. All debris swept was 'general debris' and not lead containing. No lead-monitoring cassettes were setup because no lead disturbance.
11:00 am	Burrito-wrapped debris was loaded onto flat-bed truck.
12:00 pm	New plastic sheeting was cut and placed over debris and secured with weighted debris. No loose debris was present on ground floor. Tape and excavator bucket were placed on top layer of plastic to ensure it wouldn't move.
12:30 pm	Leave work area. Work area left clean and free of visible concerns or debris
LEI Staff: Calvin Arca	
Date: 05/06/24	

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/13/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. Silver panels and white framing.		

Time	Description
8:30 am	Meeting at Hale Pohaku. Discussed plans for the day.
9:30 am	Arrived to CSO. Air monitoring pumps and lead cassettes were setup around the area. Pump 1 setup by front entrance, Pump 2 setup by storage shed, Pump 3 setup on opposite side of front entrance behind barrier, Pump 4 setup on opposite side of storage behind barrier. All pumps setup around observatory structure. Upon arrival, checked plastic covering debris within observatory. Seemed secure and held up over the weekend.
10:30 am	Northwest crew began using hydraulic cutters to cut exterior pieces of the observatory panels. Afterwards, focused on cutting the white metal framing of the observatory. Paint chips seen falling downward. Calvin and Unitek focused on picking up paint chips. Water truck sprayed water on debris and where debris was piled up to weigh down paint chips and dust.
1:30 pm	Hydraulic cutter finished cutting. All debris piled toward center-dip of observatory. Multiple people worked to sweep debris into the center of the structure and pick up and vacuum paint chips on the ground. Debris in center-dip was covered with plastic.
3:00 pm	Area was clean and free of visible debris. Pumps and cassettes collected.
LEI Staff: Calvin Arca	
Date: 05/13/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/13/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/13/24 L1	OWA	9:30 am	3:00 pm	2	2	2	330	660

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/13/24 L2	OWA	9:30 am	3:00 pm	2	2	2	330	660

Sample Location:

In between the storage sheds of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/13/24 L3	OWA	9:30 am	3:00 pm	2	2	2	330	660

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/13/24 L4	OWA	9:30 am	3:00 pm	2	2	2	330	660

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/14/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels.		

Time	Description
8:00 am	Meeting at Hale Pohaku. Discussed plans for the day.
9:00 am	Arrived at CSO. Pumps and cassettes setup and placed around observatory in same manner as described before. Debris covered with plastic in center-dip of observatory was clean and stable, didn't move overnight.
9:30 am	Crane and excavator moved debris in center-dip to make it easier to load dump trucks. Calvin and Unitek monitor area and pick up paint chips as needed.
10:00 am	5 dump trucks on site. 1 truck at a time moved close to observatory to be loaded with debris with the excavator. Plastic was laid out at the area where trucks were loaded to catch paint chips. Every truck had a cargo net to cover their beds after being loaded.
12:00 pm	All 5 trucks finished loading. Northwest continued demoing more of the observatory. Water truck sprayed to weigh paint chips down and control dust.
12:30 pm	Everyone focused on cleaning. Sweeping and moving debris into the center-dip of the observatory. Center-dip was covered with plastic. Calvin and Unitek focused on picking up and vacuuming paint chips around the area.
2:00 pm	Pumps and cassettes collected.
LEI Staff: Calvin Arca	
Date: 05/14/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/14/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/14/24 L1	OWA	9:00 am	2:00 pm	2	2	2	300	600

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/14/24 L2	OWA	9:00 am	2:00 pm	2	2	2	300	600

Sample Location:

In between the storage sheds of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/14/24 L3	OWA	9:00 am	2:00 pm	2	2	2	300	600

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/14/24 L4	OWA	9:00 am	2:00 pm	2	2	2	300	600

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank



Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/15/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels		

Time	Description
8:00 am	Crews arrived at CSO. Pumps and cassettes were setup around the observatory in the same manner as before. Crane cutter focused on cutting demoing drywall within the structure that was still connected to intact panels to prevent debris splatter in the wind. Water truck also sprayed water where crane was demoing.
9:00 am	Brief stop in work. All crews focused on picking up paint chips around the area. Work continued at 9:30 am.
9:45 am	Brief stop in work. Hydraulic cutters' line disconnected.
10:00 am	Continue cutting inside frames and drywall of 2 remaining sides of the observatory structure. Afterwards, hydraulic crane focused collapsing 1 more side of the structure. Silver panels and white metal framing. Water truck sprayed water as needed. All available hands helped with picking up paint chips during the process.
12:30 pm	Side of the observatory was finished demoing. Final cleanup performed for the day. All available hands picked up paint chips and swepted and moved debris into the center-dip of the observatory structure.
2:00 pm	Area left clean and secure. Pumps and cassettes collected.
LEI Staff: Calvin Arca	
Date: 05/15/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/15/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/15/24 L1	OWA	8:00 am	2:00 pm	2	2	2	360	720

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/15/24 L2	OWA	8:00 am	2:00 pm	2	2	2	360	720

Sample Location:

In between the storage sheds of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/15/24 L3	OWA	8:00 am	2:00 pm	2	2	2	360	720

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/15/24 L4	OWA	8:00 am	2:00 pm	2	2	2	360	720

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/16/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
8:00 am	Crews arrived at CSO. Pumps and cassettes setup in the same manner as described before. Area was very foggy and windy. Waited for all project leaders to arrive and discuss next course of action. It was decided that we would try loading 1 truck to see if debris would splatter upon moving stockpiled debris.
10:00 am	Started loading 1 dump truck at a time. All available hands spread out far to pick up paint chips if seen. Trucks were loaded slowly and only with big debris at the top, not the fine smaller debris at the bottom. A lower wall of the structure was left in tact to shield the piled debris in the center from wind flow.
12:30 pm	Trucks were loaded. Small debris in the center-dip wasn't touched due to winds. All hands on site did as much as they could to pick up paint chips seen. Northwest continued demoing some metal framing. Constant vacuuming and picking up of material done by everyone.
1:00 pm	Work day done. Area left clean as possible. Center-dip of structure was covered with big pieces of material. Wind forecast for the night was low. Pumps and cassettes collected.
LEI Staff: Calvin Arca	
Date: 05/16/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/16/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/16/24 L1	OWA	8:00 am	1:00 pm	2	2	2	300	600

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/16/24 L2	OWA	8:00 am	1:00 pm	2	2	2	300	600

Sample Location:

In between the storage sheds of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/16/24 L3	OWA	8:00 am	1:00 pm	2	2	2	300	600

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/16/24 L4	OWA	8:00 am	1:00 pm	2	2	2	300	600

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/17/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discuss plans for the day.
8:00 am	Crews arrived on site. Area very windy, foggy, and cold. Plan for loading trucks for the day was canceled. No pumps or cassettes were setup around the area due to no demolition. Crews focused on securing stockpiled debris in the center-dip of of the structure. Black fabric was placed over dip and weighed down with heavy framing pieces to hold it down over the weekend.
9:00 am	Work area left secure. Center-dip of observatory was completely covered with black fabric.
LEI Staff: Calvin Arca	
Date: 05/17/24	

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/20/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels.		

Time	Description
8:30 am	Meeting at Hale Pohaku. Discussed plans for the day.
10:00 am	Crews arrived at CSO structure. Northwest demolition and Unitek prepared for loading dump trucks with debris from center-dip of the structure. Debris in the center was covered and seemed secure over the weekend. Unitek staff laid out plastic for dump trucks to set bed on for loading of debris. Winds were low. Pumps and cassettes setup.
10:30 am	Calvin hiked up Northeast to scout for paint chips supposedly seen last week thursday that caught wind and went far. None seen, only general trash such as footballs, slippers, and white plastic pieces not from CSO. Unitek remained at CSO to clean as dump trucks were loaded and pick up paint chips.
1:30 pm	Northwest started demoing silver storage building to make room for collapsing ring of CSO. Drywall and insulation seen in building. All hands helped to clean and remove insulation and sweep debris as soon as possible. Water truck sprayed water to weigh down debris and limit travel. Pump 2 location adjusted.
2:30 pm	5 trucks loaded with debris and driving down.
3:00 pm	Storage down. Pieces of storage were placed over center-dip of CSO. Multiple hands on site cleaned up entire area for debris and paint chips. Calvin went far to scout for debris that went outside of barrier area.
4:30 pm	End of day. Pumps and cassettes collected. Area left clean.
LEI Staff: Calvin Arca	
Date: 05/20/24	



## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/20/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/20/24 L1	OWA	10:00 am	4:30 pm	2	2	2	390	780

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/20/24 L2	OWA	10:00 am	4:30 pm	2	2	2	390	780

Sample Location:

In between the storage sheds of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/20/24 L3	OWA	10:00 am	4:30 pm	2	2	2	390	780

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/20/24 L4	OWA	10:00 am	4:30 pm	2	2	2	390	780

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/21/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White framing and silver panels.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Crews arrived to CSO. Northwest demolition focused on manipulating debris in center-dip of structure to make it easier for loading. No debris on the ground, not affected by overnight winds. Unitek setup vaccums and plastic for truck loading. Pumps and cassettes setup around area.
9:00 am	Dump trucks on site. Trucks were loaded with debris from CSO 1 by 1. Available hands assisted with debris cleanup during loading. Wind flow now coming from the northeast to the southwest of the structure. Had to pickup debris on 'downhill' side of the structure now. Occasional watering used to weigh debris down and reduce travel.
10:00 am	3 trucks done loading. Northwest demolition started taking off exterior aluminum panels off of the last ring and began demoing the last of the interior drywalls. Watertruck used to keep dust down. All available hands worked on cleaning and picking up debris during the process.
11:30 am	Northwest demolition began focusing on cutting more framing on the rings to prepare for ring-takedown.
1:30 pm	Observatory ring dropped. All available hands assisted with cleaning debris. Northwest ddemolition focused on cutting the ring into smaller pieces and placing them onto center-dip of structure. Plastic placed over section with small debris. Big pieces remained in the center.
3:35 pm	Work day done. Area left clean. Pumps and cassettes collected. Left job site.
LEI Staff: Calvin Arca	
Date: 05/21/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/21/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decommissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/21/24 L1	OWA	7:30 am	3:30 pm	2	2	2	480	960

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/21/24 L2	OWA	7:30 am	3:30 pm	2	2	2	480	960

Sample Location:

Next to water-pump shed of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/21/24 L3	OWA	7:30 am	3:30 pm	2	2	2	480	960

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flow (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/21/24 L4	OWA	7:30 am	3:30 pm	2	2	2	480	960

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/22/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White and red framing and silver panels.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Crews arrived to CSO. Northwest demolition focused on manipulating debris in center-dip of structure to make it easier for loading. No debris on the ground, not affected by overnight winds. Unitek setup vacuums and plastic for truck loading. Pumps and cassettes setup around area.
8:00 am	Crane cutter started cutting material. Water truck started watering structure to keep dust down.
8:50 am	1st truck started loading. Water truck used water occasionally to keep dust down. Unitek setup plastic on ground to keep ground clean. Staff standby to clean as needed. 4 Trucks finished loading at 10:30 am.
11:00 am	Standby. Watertruck stuck in different location.
12:30 pm	Watertruck returned. Northwest crew focused on knocking down 2nd ring structure of the observatory. Ring was brought down at 1:00 pm. Crew then focused on taking apart ring and placing pieces on center dip of structure.
2:00 pm	Final cleaning of area. All debris swept up and placed in center dip of structure. Wind forecast low for the night. Work area left clean.
LEI Staff: Calvin Arca	
Date: 05/22/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/22/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/22/24 L1	OWA	7:30 am	2:00 pm	2	2	2	390	780

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/22/24 L2	OWA	7:30 am	2:00 pm	2	2	2	390	780

Sample Location:

Next to water-pump shed of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/22/24 L3	OWA	7:30 am	2:00 pm	2	2	2	390	780

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/22/24 L4	OWA	7:30 am	2:00 pm	2	2	2	390	780

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/23/24

## Scheduled Activity

Building(s):	Caltech Submillimeter Observatory	Floor(s):	N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White and red framing and silver panels.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day as well as second meeting to discuss soil sampling.
8:00 am	Arrived to CSO. Northwest and Unitek crew on site preparing for loading debris onto trucks. Pumps and Cassettes were setup around work area. First truck was loaded at 8:50 am. Staff on standby cleaned and picked up debris as needed. Watertruck sprayed water occasionally to keep dust down.
10:00 am	Northwest crew started removing exterior silver panels on lower deck of structure. Calvin monitor as needed. Available hands picked up debris as needed. Water used to keep dust down.
10:30 am	4 trucks finished loading.
11:30 am	Exterior silver panels on lower deck removed. All hands picked up and swept up now-exposed debris and bagged them. Bigger pieces were thrown into center-dip of structure.
12:30 pm	All exposed debris now taken care of. Northwest crew continued cutting big pieces within center-dip of the structure. Northwest manipulated debris in center of the structure so big debris covered smaller debris.
3:00 pm	Cutting of debris in center-dip done. All available hands cleaned up visible debris outside of center dip. Scouted outside work area for paint chips. Debris in center-dip was secure. Wind low overnight. Pumps and cassettes collected. Work site clean.
LEI Staff: Calvin Arca	
Date: 05/23/24	



## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/23/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/23/24 L1	OWA	8:00 am	3:00 pm	2	2	2	420	840

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/23/24 L2	OWA	8:00 am	3:00 pm	2	2	2	420	840

Sample Location:

Next to water-pump shed of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/23/24 L3	OWA	8:00 am	3:00 pm	2	2	2	420	840

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/23/24 L4	OWA	8:00 am	3:00 pm	2	2	2	420	840

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/24/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint. White and red framing and silver panels.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Arrived at CSO. Checked exterior of work area for debris. None seen. Unitek and Northwest prepared area to load up debris onto trucks. Pumps and Cassettes set up around work area.
12:00 pm	5 trucks loaded. In between loading trucks, excavator operator manipulated debris again to have big pieces and panels over center-dip of the structure. All available hands cleaned area after trucks finished loading.
12:30 pm	Pumps and cassettes collected. Debris was secured in the center-dip of the structure. Left work area clean.
LEI Staff: Calvin Arca	
Date: 05/24/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/24/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/24/24 L1	OWA	7:30 am	12:30 pm	2	2	2	300	600

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/24/24 L2	OWA	7:30 am	12:30 pm	2	2	2	300	600

Sample Location:

Next to water-pump shed of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/24/24 L3	OWA	7:30 am	12:30 pm	2	2	2	300	600

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/24/24 L4	OWA	7:30 am	12:30 pm	2	2	2	300	600

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioning

Page: 1 of 1

Date: 05/28/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint containing materials. Loose debris.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
8:30 am	Arrived to CSO. Area was clean.
9:30 am	Northwest started loading debris from concrete platform of the telescope. Water utilized as needed to keep dust down. Unitek prepared loading area by laying down plastic and constantly sweeping debris as needed. Pumps and cassettes setup around work area.
12:30 pm	3 trucks done loading. All hands clean area as needed. Delay due to excavator self-cleaning mode.
1:00 pm	Northwest began removing rotating red metal piece that circulated around structure. All removed by 1:30 pm.
2:30 pm	All available hands cleaned debris around work area. No paint chips seen. Covered debris on the concrete platform of CSO with plastic, especially soft insulation. Debris very saturated, water seen collecting on concrete platform. Wind forecast for the night was low. Pumps and cassettes collected. Left work area.
LEI Staff: Calvin Arca	
Date: 05/28/24	

**Lehua Environmental Inc.****Air Monitoring Log**

<b>Project No.:</b>		<b>Date:</b>	05/28/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/28/24 L1	OWA	9:30 am	2:30 pm	2	2	2	300	600

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/28/24 L2	OWA	9:30 am	2:30 pm	2	2	2	300	600

Sample Location:

Next to water-pump shed of the observatory structure. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/28/24 L3	OWA	9:30 am	2:30 pm	2	2	2	300	600

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/28/24 L4	OWA	9:30 am	2:30 pm	2	2	2	300	600

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/29/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Lead paint building materials. loose debris.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
8:30 am	Arrived to CSO. Pumps and cassettes setup. Unitek and Northwest onsite to prepare loading trucks. Area prepared for loading and all hands cleaned as needed. Plastic was laid down at loading area.
10:30 am	All trucks finished loading. Red metal ring tracks were loaded onto flatbed hauling trucks in stable pieces. All hands cleaned work area.
11:00 am	Goodfellow started hammering raised concrete lip. Water as needed to keep dust down.
1:00 pm	Goodfellow stopped hammering ring. Constant repairs on hydraulic lines. Switched to bucket and started focusing on cesspool digging. Calvin and Nicole did mock-sampling. Meanwhile, all available hands cleaned up the CSO side of the building for loose debris.
2:30 pm	Done cleaning. Pumps and cassettes collected. Cesspool area roped off. Left work area.
LEI Staff: Calvin Arca	
Date: 05/29/24	



## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/29/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/29/24 L1	OWA	8:30 am	2:30 pm	2	2	2	360	720

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/29/24 L2	OWA	8:30 am	2:30 pm	2	2	2	360	720

Sample Location:

Next to container stored on work area. Next to rope barrier. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/29/24 L3	OWA	8:30 am	2:30 pm	2	2	2	360	720

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/29/24 L4	OWA	8:30 am	2:30 pm	2	2	2	360	720

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/30/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Remaining loose debris from CSO. On concrete platform. Cesspool soil.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Arrived at CSO. Setup pumps and cassettes around area. Prepare for cesspool soil sampling. Unitek and Northwest on site preparing for loading debris.
8:30 am	White pump house shed was taken down and disposed of. Last lead structure in work area besides possible paint chips.
9:30 am	Goodfellow excavator did not work on cesspool. Switched sides to remove metal trim on raised lip of CSO structure. Used hammer attachment to do so. Water used as needed to keep dust down. Available hands were on CSO concrete platform shovelling and sweeping debris into loader bucket to be loaded on dump truck.
11:00 am	2nd excavator from goodfellows arrived for cesspool digging. Meanwhile, Northwest focused on loading machinery. All hands cleaned work area as much as possible before heavy machines started moving.
1:00 pm	Prepare area for soil sampling. Plastic laid out with burms. Excavator loaded soil onto plastic while Calvin sampled. PID reader nearby to track VOC concentrations. No concerns seen.
2:30 pm	Pumps and cassettes collected. Work area was clean. Cesspool roped off. Equipment collected. Left work area.
LEI Staff: Calvin Arca	
Date: 05/30/24	

## Lehua Environmental Inc.

## Air Monitoring Log

<b>Project No.:</b>		<b>Date:</b>	05/30/24
<b>Client:</b>		<b>Sampled By:</b>	Calvin Arca
<b>Project Site:</b>	CSO Decomissioning		

Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/30/24 L1	OWA	7:30 am	2:30 pm	2	2	2	420	840

Sample Location:

At gate / road entrance to observatory structure. Northeast of observatory.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/30/24 L2	OWA	7:30 am	2:30 pm	2	2	2	420	840

Sample Location:

Next to container stored on site within work area. Next to rope barrier. Northwest of observatory. .

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/30/24 L3	OWA	7:30 am	2:30 pm	2	2	2	420	840

Sample Location:

Southwest of observatory. Opposite side of the gate / road entrance. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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Sample ID	Type*	Start Time	Stop Time	Initial Flow (LPM)	Final Flow (LPM)	Avg. Flor (LPM)	Total Time (min.)	Total Vol. (liters)
CSO 5/30/24 L4	OWA	7:30 am	2:30 pm	2	2	2	420	840

Sample Location:

Southeast of observatory. Opposite side of the storage sheds. Along rope barrier.

<b>Analyte:</b> (select one)	<input type="radio"/> Asbestos <input checked="" type="radio"/> Lead <input type="radio"/> Other: _____
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\*Sample Type: IWA- Inside Work Area, OWA- Outside Work Area, E- Environmental, B- Background, C- Clearance, P- Personal, FB- Field Blank, LB- Lot Blank

Project: Mauna Kea CSO decommissioningPage: 1 of 1Date: 05/31/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Remaining loose debris from CSO. On concrete platform. Cesspool soil.		

Time	Description
6:45 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Arrived at CSO. Unitek staff walked around outside of work area to look for any remaining paint chips. Calvin prepare for soil sampling.
8:30 am	Goodfellow started hammering concrete base of CSO (Not lower concrete skirt). Excavator for cesspool down, awaited repairs for the day.
10:30 am	Unitek gathered all signatures of monitors for clearance. Left job site. Area free of paint chips.
11:00 am	Brief digging and sampling of cesspool. Material laid on top of plastic. Calvin gathered samples. Excavator later went on for more repairs.
1:00 pm	Continue digging cesspool. Calvin monitor VOCs with PID. Calvin gather samples and advise for material management.
3:00 pm	Work done. Cesspool not finished. Soil stockpiles covered with plastic. Samples kept cool. Left work area.
LEI Staff: Calvin Arca	
Date: 05/31/24	

Project: Mauna Kea CSO decommissioning

Page: 1 of 1

Date: 06/03/24

Scheduled Activity			
Building(s):	Caltech Submillimeter Observatory		Floor(s): N/A
Room(s):	N/A		
Material to be disturbed:	Cesspool soil.		

Time	Description
7:00 am	Meeting at Hale Pohaku. Discussed plans for the day.
7:30 am	Arrived at CSO. Goodfellow started digging cesspool and chipping concrete slab for CSO. Concrete demo area was watered occasionally to control dust. VOC readings done while working near cesspool. Soil sampling done while excavator stockpiled soils. stockpiled soils rested on plastic.
11:30 am	Reached base of cesspool. Last of DU 2 samples taken.
1:30 pm	Reached section of cesspool under concrete base. Concrete base removed. All discoloration (dark spots) removed. Soil placed on top of DU 3. Calvin sampled scoops of soil from DU 3.
3:00 pm	All soil samples from DU 2 and DU 3 taken. All stockpiled soils covered and secured with plastic. Left work area.
LEI Staff: Calvin Arca	
Date: 06/03/24	