

Weekly Construction Summary

Week Ending 06/14/2024

Construction Summary

The weather was suitable for all planned work all week.

Monday (06/10) No Work, holiday taken in lieu of Kamehameha Day on Tuesday 6/11.

Tuesday (06/11): Hauling of CSO concrete foundation rubble offsite to GBI Waikaloa quarry. Excavation of NW site area, segregating rock and soils, and hauling to lower quarry (former batch plant).

Wednesday (06/12) Continued hauling of CSO concrete foundation rubble offsite to GBI Waikaloa quarry. Excavation of NW site area, segregating rock and soils, and hauling to lower quarry (former batch plant).

Thursday (06/13): Continued hauling of CSO concrete foundation rubble offsite to GBI Waikaloa quarry. Excavation of NW site area, segregating rock and soils, and hauling to lower quarry (former batch plant). Fine grading of NW perimeter to existing ground. MKSS hauls 2000 gallon water tank offsite for salvage use..

Friday (06/14) Continued hauling of CSO concrete foundation rubble offsite to GBI Waikaloa quarry. Excavation of NW site area, segregating rock and soils, and hauling to lower quarry (former batch plant). Fine grading of W perimeter to existing ground.

Daily reports and photos attached.

NOTES:

- GBI awaiting soil test results from Lehua so as to proceed with excavation of the CSO dome area.
- CMS (kh) construction monitor reviewed fine grading of NW perimeter transition to existing ground, and although favourably impressed, noted that acceptance will require review by CMS management.



INDEPENDENT DECOMMISSIONING PROJECT MANAGER PROJECT DIARY

DATE : Tuesday, June 11, 2024

WEATHER: Suitable for all Planned Work
Sunny, Light NE Wind, Cool.

PROJECT TITLE: **Caltech Submillimeter Observatory Decommissioning**



Work Hours:

Report By: **William Wanner**

Arrv: **0730**

Dep: **1430**

Monitors on Site:	Cultural - Gerard Mahi Archeological - Colson Balai Construction - CMS Karl Halemano
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Work Items	
Demolition	<p>Following the 0645 meeting,AECOM, GBI, ASM, CSM, Taymade, and Lehua arrived at the CSO approx. 0730</p> <p>Activities :</p> <p>0730 J. Deere 350P excavator loading CSO foundation rubble into 10CY dump truck, water truck spraying suppresses fugitive dust.</p> <p>0745 GBI 10CY dump truck loaded with concrete rubble departs to GBI quarry.</p> <p>0745-0815 Three(3) Deluz tractor trailers loaded with concrete rubble from CSO foundation. All departed by 0815 to GBI offsite quarry in Waikaloa. Invasive species inspection renewal conducted yesterday; attached certificates received from GBI. Plan second haul trip this afternoon.</p> <p>0815-0930- Excavator with bucket potholes CSO area at 4ft on center for Lehua to take soil samples.</p> <p>0930--1030 Excavator,exposes, removes, and backfills remaining HELCo and HawTel ducts between the roadside handhole group #28 to the onsite transformer.</p> <p>1050 - 1120 10CY dump truck returns, loaded with concrete rubble, and hauled offsite to GBI quarry.</p> <p>1200 No Show - Three(3) Deluz tractor trailers did not return for reload due to DeLuz safety stand down about last weeks cattle truck rollover.</p> <p>1200-1410 - Excavation/demolition of utility duct bank from CSO dome to potable water tank building.</p> <p>1420 GBI received cesspool stockpile test results from Lehua - soil is clean and thus can be hauled offsite.</p> <p>1430 Site leveled, secured and all personnel and monitors left the site.</p> <div> 6-10 MK Equipment Inspections.pdf</div> <div> Soil Results - CSO Cesspool.pdf</div>

WORK FORCE & EQUIPMENT						
NAME	POS	HR	Company	EQUIPMENT	MODEL/TYPE	HR
Jon Steen	Supt		GBI	20' Container	Generic	
Bronson Sylva	Foreman		GBI	Water Truck	Kenworth lic. 469TXU	
Brandon Kepano	Equip Op		GBI	Loader	CAT 950 GC	
Keala Drummondo	Equip Op		GBI	Excavator w/ hydraulic hammer chisel point	Deere 350 P	
Kai'imi Beck	Intern		GBI	Excavator w two buckets and chain lift	Deere 245 P	
				Crew Truck w/ fuel tank	Ford F350	
				Pickup Truck	Ford F150	
				10CY Dump Truck	PeterBuilt	
				4X4 Van	Ford E350	

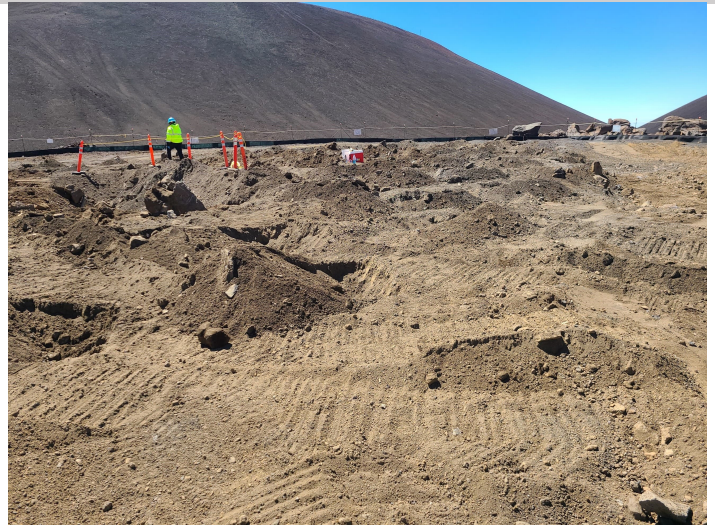
Signed by: 

Reviewed by: William Wanner

Date 6/11/2024



^ Loading Concrete Rubble & Potholing for Soil Sampling



^ CSO Dome Area Soil Sampling Potholes



^ Driveway Asphalt Pavement Demolition



^ HELCo Duct Demolition at HHG #28



^ Salvaged Material Stockpile



^ End of Day Worksite Condition



UNIVERSITY of HAWAII at HILO
CENTER FOR MAUNAKEA
STEWARDSHIP

No. 1584

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED

☐ REJECTED

Date and Time: 6/10/24 5:00pm

Inspector: James Parker

Expiration date and time: 6/14/24 5pm

Inspection location: De Luz Waimea

Destination: CSD site summit

Facility/Representative: Kevin Balog

Vehicle Lic & Owner: 881 HEC Semi

Concerns identified: N/A

Cargo Description: dump trailer

Remediation taken: N/A

Bait used? ☐ Yes ☒ No

Rush inspection? ☐ Yes ☒ No

Escort Required? ☐ Yes ☒ No

☐ EMERGENCY (no inspection)

☐ NON-COMPLIANT (no inspection requested)

This certificate is proof that the inspection is valid for the stated vehicle, cargo, destination, and time frame.

Drivers should keep this certificate in vehicle when making delivery.

For more information please visit: www.malamamaunakea.org/inspections/

ST00110



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No. 1585

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED

☐ REJECTED

Date and Time: 6/10/24 5pm

Inspector: James Parker

Expiration date and time: 6/14/24 5pm

Inspection location: De Luz Waimea

Destination: CSD site summit

Facility/Representative: Kevin Balog

Vehicle Lic & Owner: 921 H2L trailer

Concerns identified: N/A

Cargo Description: empty

Remediation taken: N/A

Bait used? ☐ Yes ☒ No

Rush inspection? ☐ Yes ☒ No

Escort Required? ☐ Yes ☒ No

☐ EMERGENCY (no inspection)

☐ NON-COMPLIANT (no inspection requested)

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EDT0018



No. 1586

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INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED☐ REJECTEDDate and Time: 6/10/24 5pmInspector: James ParkerExpiration date and time: 6/14/24 5pmInspection location: De Luz WaimeaDestination: CSD site summitFacility/Representative: Kevin BalogVehicle Lic & Owner: 190 HEB SemiConcerns identified: N/ACargo Description: dump trailerRemediation taken: N/ABait used? ☐ Yes ☒ NoRush inspection? ☐ Yes ☒ NoEscort Required? ☐ Yes ☒ No☐ EMERGENCY (no inspection)☐ NON-COMPLIANT (no inspection requested)

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ST00141



No. 1587

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INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED☐ REJECTEDDate and Time: 6/10/24 5pmInspector: James ParkerExpiration date and time: 6/14/24 5pmInspection location: De Luz WaimeaDestination: CSD site summitFacility/Representative: Kevin BalogVehicle Lic & Owner: 159 HYX trailerConcerns identified: N/ACargo Description: emptyRemediation taken: N/ABait used? ☐ Yes ☒ NoRush inspection? ☐ Yes ☒ NoEscort Required? ☐ Yes ☒ No☐ EMERGENCY (no inspection)☐ NON-COMPLIANT (no inspection requested)

This certificate is proof that the inspection is valid for the stated vehicle, cargo, destination, and time frame.

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EDT0077



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CENTER FOR MAUNAKEA
STEWARDSHIP

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED☐ REJECTEDDate and Time: 6/10/24 5pmInspector: James ParkerExpiration date and time: 6/14/24 5pmInspection location: De Luz WaimeaDestination: CSD site summitFacility/Representative: Kevin BalogVehicle Lic & Owner: 188 HEB SemiConcerns identified: N/ACargo Description: dump trailerRemediation taken: N/ABait used? ☐ Yes ☒ NoRush inspection? ☐ Yes ☒ NoEscort Required? ☐ Yes ☒ No☐ EMERGENCY (no inspection)☐ NON-COMPLIANT (no inspection requested)

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ST00140



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EDT0028



No. 1590

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STEWARDSHIP

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED☐ REJECTEDDate and Time: 6/10/24 5pmInspector: James ParkerExpiration date and time: 6/14/24 5pmInspection location: De Luz WaimeaDestination: CSD site summitFacility/Representative: Kevin BalogVehicle Lic & Owner: silver trailer no tagConcerns identified: N/ACargo Description: roll-off binRemediation taken: N/ABait used? ☐ Yes ☒ NoRush inspection? ☐ Yes ☒ NoEscort Required? ☐ Yes ☒ No☐ EMERGENCY (no inspection)☐ NON-COMPLIANT (no inspection requested)

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No. 1591

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CENTER FOR MAUNAKEA
STEWARDSHIP

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is:

☒ APPROVED☐ REJECTEDDate and Time: 6/10/24 5pmInspector: James ParkerExpiration date and time: 6/14/24 5pmInspection location: De Luz WaimeaDestination: CSD site summitFacility/Representative: Kevin BalogVehicle Lic & Owner: temp license semiConcerns identified: N/ACargo Description: Flatbed silver trailerRemediation taken: N/ABait used? ☐ Yes ☒ NoRush inspection? ☐ Yes ☒ NoEscort Required? ☐ Yes ☒ No☐ EMERGENCY (no inspection)☐ NON-COMPLIANT (no inspection requested)

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Ledwell



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 11, 2024

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

Re: Analytical Data for Project 2024-243
Laboratory Reference No. 2406-039

Dear Kama:

Enclosed are the analytical results and associated quality control data for samples submitted on June 5, 2024.

Please note that the data for the subcontracted analyses will follow in the final report.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DeB" followed by a stylized flourish.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 11, 2024
Samples Submitted: June 5, 2024
Laboratory Reference: 2406-039
Project: 2024-243

Case Narrative

Samples were collected on May 31 and June 3, 2024 and received by the laboratory on June 5, 2024. Samples were shipped in a cooler packed with blue ice and arrived at a temperature of $<6^{\circ}\text{C}$. They were maintained at the laboratory at a temperature of 2°C to 6°C . A copy of the cooler receipt form has been included with this report.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

All samples were processed in the laboratory following the multi-increment sampling procedures as outlined in the HEER-TGM. Additional notes will be addressed in appropriate sections as warranted.

Volatiles EPA 8260D Analysis

The percent recovery for Bromomethane is outside the control limits in the Spike Blank and Spike Blank Duplicate. The method allows for a percentage of the compounds to fall outside of the control limits due to the large number of analytes being spiked.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**GASOLINE RANGE ORGANICS
 EPA 8015M**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Gasoline	ND	9.0	EPA 8015M	6-6-24	6-6-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	111	62-134				
Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Gasoline	ND	14	EPA 8015M	6-6-24	6-6-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	62-134				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**GASOLINE RANGE ORGANICS
 EPA 8015M
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0606S1					
Gasoline	ND	5.0	EPA 8015M	6-6-24	6-6-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	95	62-134				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-039-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
Surrogate:								
Fluorobenzene				111	117	62-134		



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**DIESEL AND HEAVY OIL RANGE ORGANICS
 EPA 8015M**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Diesel Range Organics	ND	27	EPA 8015M	6-11-24	6-11-24	
Residual Range Organics	ND	43	EPA 8015M	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	75	50-150				

Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Diesel Range Organics	ND	28	EPA 8015M	6-11-24	6-11-24	
Residual Range Organics	150	45	EPA 8015M	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**DIESEL AND HEAVY OIL RANGE ORGANICS
 EPA 8015M
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0611S1					
Diesel Range Organics	ND	25	EPA 8015M	6-11-24	6-11-24	
Residual Range Organics	ND	40	EPA 8015M	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	06-090-01									
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	40	
Residual Range Organics	65.8	49.8	NA	NA		NA	NA	28	40	
Surrogate:										
o-Terphenyl						76	77	50-150		



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

VOLATILE ORGANICS EPA 8260D/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Dichlorodifluoromethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Chloromethane	ND	0.45	EPA 8260D	6-6-24	6-6-24	
Vinyl Chloride (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
Bromomethane	ND	0.45	EPA 8260D	6-6-24	6-6-24	
Chloroethane	ND	0.45	EPA 8260D	6-6-24	6-6-24	
Trichlorofluoromethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Iodomethane	ND	0.91	EPA 8260D	6-6-24	6-6-24	
Methylene Chloride	ND	0.45	EPA 8260D	6-6-24	6-6-24	
(trans) 1,2-Dichloroethene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
2,2-Dichloropropane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
(cis) 1,2-Dichloroethene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Bromochloromethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Chloroform (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,1-Trichloroethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Carbon Tetrachloride	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloropropene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Benzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloroethane (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
Trichloroethene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloropropane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Dibromomethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Bromodichloromethane (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

VOLATILE ORGANICS EPA 8260D/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
2-Chloroethyl Vinyl Ether	ND	0.64	EPA 8260D	6-6-24	6-6-24	
(cis) 1,3-Dichloropropene (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
Toluene	ND	0.45	EPA 8260D	6-6-24	6-6-24	
(trans) 1,3-Dichloropropene (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,2-Trichloroethane (SIM)	ND	0.0091	EPA 8260D/SIM	6-6-24	6-6-24	
Tetrachloroethene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,3-Dichloropropane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Dibromochloromethane (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dibromoethane (SIM)	ND	0.0045	EPA 8260D/SIM	6-6-24	6-6-24	
Chlorobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,1,1,2-Tetrachloroethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Ethylbenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
m,p-Xylene	ND	0.18	EPA 8260D	6-6-24	6-6-24	
o-Xylene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Bromoform	ND	0.45	EPA 8260D	6-6-24	6-6-24	
Bromobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,1,2,2-Tetrachloroethane	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,2,3-Trichloropropane (SIM)	ND	0.0091	EPA 8260D/SIM	6-6-24	6-6-24	
2-Chlorotoluene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
4-Chlorotoluene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,3-Dichlorobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,4-Dichlorobenzene (SIM)	ND	0.0091	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dichlorobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
1,2-Dibromo-3-chloropropane (SIM)	ND	0.013	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,4-Trichlorobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
Hexachlorobutadiene (SIM)	ND	0.0091	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,3-Trichlorobenzene	ND	0.091	EPA 8260D	6-6-24	6-6-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>91</i>	<i>69-124</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>80-118</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>75-123</i>				



Date of Report: June 11, 2024
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 Project: 2024-243

VOLATILE ORGANICS EPA 8260D/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Dichlorodifluoromethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Chloromethane	ND	0.72	EPA 8260D	6-6-24	6-6-24	
Vinyl Chloride (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
Bromomethane	ND	0.72	EPA 8260D	6-6-24	6-6-24	
Chloroethane	ND	0.72	EPA 8260D	6-6-24	6-6-24	
Trichlorofluoromethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Iodomethane	ND	1.4	EPA 8260D	6-6-24	6-6-24	
Methylene Chloride	ND	0.72	EPA 8260D	6-6-24	6-6-24	
(trans) 1,2-Dichloroethene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
2,2-Dichloropropane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
(cis) 1,2-Dichloroethene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Bromochloromethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Chloroform (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,1-Trichloroethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Carbon Tetrachloride	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloropropene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Benzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloroethane (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
Trichloroethene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloropropane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Dibromomethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Bromodichloromethane (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

VOLATILE ORGANICS EPA 8260D/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	6-6-24	6-6-24	
(cis) 1,3-Dichloropropene (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
Toluene	ND	0.72	EPA 8260D	6-6-24	6-6-24	
(trans) 1,3-Dichloropropene (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,2-Trichloroethane (SIM)	ND	0.014	EPA 8260D/SIM	6-6-24	6-6-24	
Tetrachloroethene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,3-Dichloropropane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Dibromochloromethane (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dibromoethane (SIM)	ND	0.0072	EPA 8260D/SIM	6-6-24	6-6-24	
Chlorobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,1,1,2-Tetrachloroethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Ethylbenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
m,p-Xylene	ND	0.29	EPA 8260D	6-6-24	6-6-24	
o-Xylene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Bromoform	ND	0.72	EPA 8260D	6-6-24	6-6-24	
Bromobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,1,2,2-Tetrachloroethane	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,2,3-Trichloropropane (SIM)	ND	0.014	EPA 8260D/SIM	6-6-24	6-6-24	
2-Chlorotoluene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
4-Chlorotoluene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,3-Dichlorobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,4-Dichlorobenzene (SIM)	ND	0.014	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dichlorobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
1,2-Dibromo-3-chloropropane (SIM)	ND	0.020	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,4-Trichlorobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
Hexachlorobutadiene (SIM)	ND	0.014	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,3-Trichlorobenzene	ND	0.14	EPA 8260D	6-6-24	6-6-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>88</i>	<i>69-124</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>80-118</i>				
<i>4-Bromofluorobenzene</i>	<i>75</i>	<i>75-123</i>				



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**VOLATILE ORGANICS EPA 8260D/SIM
 QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0606S2					
Dichlorodifluoromethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Chloromethane	ND	0.25	EPA 8260D	6-6-24	6-6-24	
Vinyl Chloride (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
Bromomethane	ND	0.25	EPA 8260D	6-6-24	6-6-24	
Chloroethane	ND	0.25	EPA 8260D	6-6-24	6-6-24	
Trichlorofluoromethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Iodomethane	ND	0.50	EPA 8260D	6-6-24	6-6-24	
Methylene Chloride	ND	0.25	EPA 8260D	6-6-24	6-6-24	
(trans) 1,2-Dichloroethene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloroethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
2,2-Dichloropropane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
(cis) 1,2-Dichloroethene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Bromochloromethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Chloroform (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,1-Trichloroethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Carbon Tetrachloride	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,1-Dichloropropene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Benzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloroethane (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
Trichloroethene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,2-Dichloropropane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Dibromomethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Bromodichloromethane (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	



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VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0606S2					
2-Chloroethyl Vinyl Ether	ND	0.35	EPA 8260D	6-6-24	6-6-24	
(cis) 1,3-Dichloropropene (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
Toluene	ND	0.25	EPA 8260D	6-6-24	6-6-24	
(trans) 1,3-Dichloropropene (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
1,1,2-Trichloroethane (SIM)	ND	0.0050	EPA 8260D/SIM	6-6-24	6-6-24	
Tetrachloroethene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,3-Dichloropropane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Dibromochloromethane (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dibromoethane (SIM)	ND	0.0025	EPA 8260D/SIM	6-6-24	6-6-24	
Chlorobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,1,1,2-Tetrachloroethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Ethylbenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
m,p-Xylene	ND	0.10	EPA 8260D	6-6-24	6-6-24	
o-Xylene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Bromoform	ND	0.25	EPA 8260D	6-6-24	6-6-24	
Bromobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,1,2,2-Tetrachloroethane	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,2,3-Trichloropropane (SIM)	ND	0.0050	EPA 8260D/SIM	6-6-24	6-6-24	
2-Chlorotoluene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
4-Chlorotoluene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,3-Dichlorobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,4-Dichlorobenzene (SIM)	ND	0.0050	EPA 8260D/SIM	6-6-24	6-6-24	
1,2-Dichlorobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
1,2-Dibromo-3-chloropropane (SIM)	ND	0.0070	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,4-Trichlorobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
Hexachlorobutadiene (SIM)	ND	0.0050	EPA 8260D/SIM	6-6-24	6-6-24	
1,2,3-Trichlorobenzene	ND	0.050	EPA 8260D	6-6-24	6-6-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>92</i>	<i>69-124</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>80-118</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>75-123</i>				



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VOLATILE ORGANICS EPA 8260D/SIM
QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent		Recovery		RPD		Flags
					Recovery		Limits	RPD	Limit		
SPIKE BLANKS											
Laboratory ID:	SB0606S1										
	SB	SBD	SB	SBD	SB	SBD					
Dichlorodifluoromethane	0.0487	0.0479	0.0500	0.0500	97	96	24-162	2	24		
Chloromethane	0.0508	0.0527	0.0500	0.0500	102	105	41-143	4	22		
Vinyl Chloride	0.0540	0.0551	0.0500	0.0500	108	110	52-141	2	20		
Bromomethane	0.0924	0.0888	0.0500	0.0500	185	178	37-145	4	23	I,I	
Chloroethane	0.0619	0.0635	0.0500	0.0500	124	127	54-148	3	19		
Trichlorofluoromethane	0.0574	0.0588	0.0500	0.0500	115	118	65-142	2	18		
1,1-Dichloroethene	0.0588	0.0615	0.0500	0.0500	118	123	74-133	4	16		
Iodomethane	0.0487	0.0467	0.0500	0.0500	97	93	36-133	4	31		
Methylene Chloride	0.0471	0.0521	0.0500	0.0500	94	104	60-135	10	23		
(trans) 1,2-Dichloroethene	0.0581	0.0604	0.0500	0.0500	116	121	74-131	4	15		
1,1-Dichloroethane	0.0586	0.0597	0.0500	0.0500	117	119	74-130	2	15		
2,2-Dichloropropane	0.0589	0.0685	0.0500	0.0500	118	137	74-137	15	16		
(cis) 1,2-Dichloroethene	0.0571	0.0635	0.0500	0.0500	114	127	71-136	11	15		
Bromochloromethane	0.0436	0.0469	0.0500	0.0500	87	94	78-128	7	15		
Chloroform	0.0557	0.0578	0.0500	0.0500	111	116	75-128	4	15		
1,1,1-Trichloroethane	0.0574	0.0589	0.0500	0.0500	115	118	73-129	3	15		
Carbon Tetrachloride	0.0499	0.0547	0.0500	0.0500	100	109	69-134	9	15		
1,1-Dichloropropene	0.0554	0.0619	0.0500	0.0500	111	124	73-127	11	15		
Benzene	0.0577	0.0606	0.0500	0.0500	115	121	75-126	5	15		
1,2-Dichloroethane	0.0481	0.0519	0.0500	0.0500	96	104	70-133	8	15		
Trichloroethene	0.0545	0.0529	0.0500	0.0500	109	106	80-130	3	15		
1,2-Dichloropropane	0.0588	0.0610	0.0500	0.0500	118	122	78-131	4	16		
Dibromomethane	0.0456	0.0491	0.0500	0.0500	91	98	72-136	7	28		
Bromodichloromethane	0.0577	0.0583	0.0500	0.0500	115	117	80-129	1	15		
(cis) 1,3-Dichloropropene	0.0572	0.0621	0.0500	0.0500	114	124	80-132	8	17		
Toluene	0.0581	0.0590	0.0500	0.0500	116	118	78-124	2	17		
(trans) 1,3-Dichloropropene	0.0584	0.0600	0.0500	0.0500	117	120	80-130	3	15		



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QUALITY CONTROL
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Analyte	Result		Spike Level		Percent		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB0606S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1,2-Trichloroethane	0.0465	0.0510	0.0500	0.0500	93	102	80-123	9	15	
Tetrachloroethene	0.0621	0.0612	0.0500	0.0500	124	122	80-130	1	15	
1,3-Dichloropropane	0.0522	0.0566	0.0500	0.0500	104	113	80-122	8	15	
Dibromochloromethane	0.0476	0.0486	0.0500	0.0500	95	97	80-129	2	15	
1,2-Dibromoethane	0.0443	0.0478	0.0500	0.0500	89	96	80-125	8	15	
Chlorobenzene	0.0496	0.0500	0.0500	0.0500	99	100	80-119	1	15	
1,1,1,2-Tetrachloroethane	0.0505	0.0533	0.0500	0.0500	101	107	80-124	5	15	
Ethylbenzene	0.0581	0.0593	0.0500	0.0500	116	119	80-120	2	15	
m,p-Xylene	0.117	0.117	0.100	0.100	117	117	80-121	0	15	
o-Xylene	0.0584	0.0591	0.0500	0.0500	117	118	80-120	1	15	
Bromoform	0.0477	0.0490	0.0500	0.0500	95	98	79-132	3	15	
Bromobenzene	0.0505	0.0504	0.0500	0.0500	101	101	80-124	0	15	
1,1,2,2-Tetrachloroethane	0.0446	0.0492	0.0500	0.0500	89	98	75-128	10	19	
1,2,3-Trichloropropane	0.0462	0.0511	0.0500	0.0500	92	102	74-128	10	19	
2-Chlorotoluene	0.0518	0.0519	0.0500	0.0500	104	104	80-126	0	15	
4-Chlorotoluene	0.0530	0.0508	0.0500	0.0500	106	102	80-129	4	15	
1,3-Dichlorobenzene	0.0541	0.0530	0.0500	0.0500	108	106	80-125	2	15	
1,4-Dichlorobenzene	0.0527	0.0521	0.0500	0.0500	105	104	78-127	1	15	
1,2-Dichlorobenzene	0.0510	0.0521	0.0500	0.0500	102	104	79-127	2	15	
1,2-Dibromo-3-chloropropane	0.0393	0.0426	0.0500	0.0500	79	85	68-143	8	26	
1,2,4-Trichlorobenzene	0.0557	0.0516	0.0500	0.0500	111	103	77-142	8	19	
Hexachlorobutadiene	0.0632	0.0614	0.0500	0.0500	126	123	73-135	3	19	
1,2,3-Trichlorobenzene	0.0497	0.0495	0.0500	0.0500	99	99	77-139	0	19	
Surrogate:										
Dibromofluoromethane					97	92	69-124			
Toluene-d8					110	107	80-118			
4-Bromofluorobenzene					96	109	75-123			



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Naphthalene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
2-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
1-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthylene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Fluorene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Phenanthrene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Anthracene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Fluoranthene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Pyrene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]anthracene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Chrysene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]pyrene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[g,h,i]perylene	ND	0.0072	EPA 8270E/SIM	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	71	47-112				
Pyrene-d10	92	48-129				
Terphenyl-d14	88	51-114				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
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 Project: 2024-243

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Naphthalene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
2-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
1-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthylene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Fluorene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Phenanthrene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Anthracene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Fluoranthene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Pyrene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]anthracene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Chrysene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[b]fluoranthene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo(j,k)fluoranthene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]pyrene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Dibenz[a,h]anthracene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[g,h,i]perylene	ND	0.0075	EPA 8270E/SIM	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	76	47-112				
Pyrene-d10	96	48-129				
Terphenyl-d14	93	51-114				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0611S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Fluorene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Anthracene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Pyrene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Chrysene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	85	47-112				
Pyrene-d10	101	48-129				
Terphenyl-d14	93	51-114				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0611S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.0727	0.0729	0.0833	0.0833	87	88	64-115	0	15	
Acenaphthylene	0.0720	0.0746	0.0833	0.0833	86	90	68-118	4	15	
Acenaphthene	0.0718	0.0750	0.0833	0.0833	86	90	67-116	4	15	
Fluorene	0.0724	0.0757	0.0833	0.0833	87	91	69-120	4	15	
Phenanthrene	0.0745	0.0772	0.0833	0.0833	89	93	67-120	4	15	
Anthracene	0.0918	0.0943	0.0833	0.0833	110	113	71-118	3	15	
Fluoranthene	0.0812	0.0828	0.0833	0.0833	97	99	73-118	2	15	
Pyrene	0.0814	0.0828	0.0833	0.0833	98	99	71-118	2	15	
Benzo[a]anthracene	0.0874	0.0914	0.0833	0.0833	105	110	60-128	4	15	
Chrysene	0.0773	0.0791	0.0833	0.0833	93	95	70-121	2	15	
Benzo[b]fluoranthene	0.0747	0.0836	0.0833	0.0833	90	100	68-123	11	15	
Benzo(j,k)fluoranthene	0.0804	0.0777	0.0833	0.0833	97	93	73-123	3	17	
Benzo[a]pyrene	0.0821	0.0860	0.0833	0.0833	99	103	72-120	5	15	
Indeno(1,2,3-c,d)pyrene	0.0838	0.0888	0.0833	0.0833	101	107	64-122	6	15	
Dibenz[a,h]anthracene	0.0824	0.0861	0.0833	0.0833	99	103	72-120	4	15	
Benzo[g,h,i]perylene	0.0794	0.0833	0.0833	0.0833	95	100	71-117	5	15	
Surrogate:										
2-Fluorobiphenyl					81	83	47-112			
Pyrene-d10					95	96	48-129			
Terphenyl-d14					94	93	51-114			



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Aroclor 1016	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1221	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1232	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1242	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1248	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1254	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1260	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1262	ND	0.054	EPA 8082A	6-11-24	6-11-24	
Aroclor 1268	ND	0.054	EPA 8082A	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>104</i>	<i>40-151</i>				
Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Aroclor 1016	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1221	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1232	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1242	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1248	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1254	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1260	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1262	ND	0.056	EPA 8082A	6-11-24	6-11-24	
Aroclor 1268	ND	0.056	EPA 8082A	6-11-24	6-11-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>101</i>	<i>40-151</i>				



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0611S1					
Aroclor 1016	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1221	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1232	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1242	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1248	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1254	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1260	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1262	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Aroclor 1268	ND	0.025	EPA 8082A	6-11-24	6-11-24	
Surrogate:	Percent Recovery	Control Limits				
DCB	122	40-151				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0611S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.456	0.437	0.500	0.500	N/A	91	87	60-115	4	23	
Surrogate:											
DCB						120	110	40-151			



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		CSO DU2				
Laboratory ID:		06-039-01				
Cadmium	ND	0.54	EPA 6010D	6-7-24	6-7-24	
Chromium	5.8	0.54	EPA 6010D	6-7-24	6-7-24	
Lead	ND	5.4	EPA 6010D	6-7-24	6-7-24	
Silver	ND	1.1	EPA 6010D	6-7-24	6-7-24	

Client ID:		CSO DU3				
Laboratory ID:		06-039-02				
Cadmium	ND	0.56	EPA 6010D	6-7-24	6-7-24	
Chromium	5.2	0.56	EPA 6010D	6-7-24	6-7-24	
Lead	ND	5.6	EPA 6010D	6-7-24	6-7-24	
Silver	ND	1.1	EPA 6010D	6-7-24	6-7-24	



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**TOTAL METALS
 EPA 6010D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0607SM2					
Cadmium	ND	0.50	EPA 6010D	6-7-24	6-7-24	
Chromium	ND	0.50	EPA 6010D	6-7-24	6-7-24	
Lead	ND	5.0	EPA 6010D	6-7-24	6-7-24	
Silver	ND	1.0	EPA 6010D	6-7-24	6-7-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-061-01							
	ORIG	DUP						
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	19.6	17.8	NA	NA	NA	10	20	
Lead	6.58	7.36	NA	NA	NA	11	20	
Silver	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	06-061-01									
	MS	MSD	MS	MSD		MS	MSD			
Cadmium	44.6	44.4	50.0	50.0	ND	89	89	75-125	0	20
Chromium	110	108	100	100	19.6	90	88	75-125	2	20
Lead	236	235	250	250	6.58	92	91	75-125	0	20
Silver	19.2	19.3	25.0	25.0	ND	77	77	75-125	0	20



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

TCLP METALS
EPA 1311/6010D

Matrix: TCLP Extract

Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CSO DU2					
Laboratory ID:	06-039-01					
Cadmium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Chromium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Lead	ND	0.20	EPA 6010D	6-11-24	6-11-24	
Silver	ND	0.040	EPA 6010D	6-11-24	6-11-24	

Client ID:	CSO DU3					
Laboratory ID:	06-039-02					
Cadmium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Chromium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Lead	ND	0.20	EPA 6010D	6-11-24	6-11-24	
Silver	ND	0.040	EPA 6010D	6-11-24	6-11-24	



Date of Report: June 11, 2024
 Samples Submitted: June 5, 2024
 Laboratory Reference: 2406-039
 Project: 2024-243

**TCLP METALS
 EPA 1311/6010D
 QUALITY CONTROL**

Matrix: TCLP Extract
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0611TM1					
Cadmium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Chromium	ND	0.020	EPA 6010D	6-11-24	6-11-24	
Lead	ND	0.20	EPA 6010D	6-11-24	6-11-24	
Silver	ND	0.040	EPA 6010D	6-11-24	6-11-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	06-096-03							
	ORIG	DUP						
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	0.204	ND	NA	NA	NA	NA	NA	20
Silver	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	06-096-03									
	MS	MSD	MS	MSD		MS	MSD			
Cadmium	2.07	2.08	2.00	2.00	ND	103	104	75-125	1	20
Chromium	3.70	3.73	4.00	4.00	ND	93	93	75-125	1	20
Lead	9.54	9.63	10.0	10.0	0.204	93	94	75-125	1	20
Silver	0.893	0.900	1.00	1.00	ND	89	90	75-125	1	20



Date of Report: June 11, 2024
Samples Submitted: June 5, 2024
Laboratory Reference: 2406-039
Project: 2024-243

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
CSO DU2	06-039-01	10	6-5-24
CSO DU3	06-039-02	14	6-5-24



Date of Report: June 11, 2024
Samples Submitted: June 5, 2024
Laboratory Reference: 2406-039
Project: 2024-243

**% MOISTURE
MULTI-INCREMENT SAMPLING**

Client ID	Lab ID	% Moisture	Date Analyzed
CSO DU2	06-039-01	7	6-7-24
CSO DU3	06-039-02	11	6-7-24





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- X2 - Sample extract treated with a silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference





Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.qn-site-env.com

Chain of Custody

Page 1 of 1

Company: LEHUA ENVIRONMENTAL INC.						Turnaround Request (in working days)								
Project Number: 2024-243						(Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input checked="" type="checkbox"/> 3 Days <input type="checkbox"/> 4 Days <input type="checkbox"/> _____ (other)								
Project Name: CSO DECOMMISSIONING - CESSPOOL														
Project Manager: KAMA KOBAYASHI														
Sampled by: CALVIN ARCA/NICOLE GARAGANZA-TENGAN														
Lab ID		Sample Identification		Date Sampled	Time Sampled	Matrix	Number of Containers							
1 CSO DV2		5/31/24			S	H	NWTPH-HCID							
2 CSO DV3		6/3/24			T	F	NWTPH-Gx/BTEX							
							NWTPH-Gx EPA 8015							
							NWTPH-Dx EPA 8015							
							Volatiles 8260C							
							HVOCs + BTEX							
							Halogenated Volatiles 8260C							
							EDB EPA 8011 (Waters Only)							
							Semivolatiles 8270D/SIM (with low-level PAHs)							
							PAHs 8270D/SIM (low-level)							
							PCBs 8082A							
							Organochlorine Pesticides 8081B							
							Organophosphorus Pesticides 8270D/SIM							
							Chlorinated Acid Herbicides 8151A							
							Total FXXX Metals Cadmium, Chromium, Silver, Lead							
							Total MTCA Metals							
							TCLP Metals Cadmium, Chromium, Silver, Lead							
							HEM (oil and grease) 1664A							
							Multi-incremental sample preparation							
							Volatile and Non-Volatile							
							Cyanide SM4500-CN *							
							% Moisture							
Relinquished		Signature		Company		Date	Time	Comments/Special Instructions						
Received				LEHUA ENVIRONMENTAL INC.		6/4/24	10:00AM	* 1 week TAR for Cyanide						
Relinquished						6/5/24	10:00							
Received														
Relinquished														
Received														
Relinquished														
Reviewed/Date				Reviewed/Date		Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>								

Sample/Cooler Receipt and Acceptance Checklist

Client: _____

Client Project Name/Number: 2024-243

OnSite Project Number: 06-039

Initiated by: AMV

Date Initiated: 6/5/24

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<u>No</u>	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	<u>N/A</u>	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<u>N/A</u>	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<u>Yes</u>	No	N/A	1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<u>Yes</u>	No	N/A	Temperature: <u>4</u>			
1.6 Have shipping bills (if any) been attached to the back of this form?	<u>Yes</u>	N/A					
1.7 How were the samples delivered?	Client	Courier	<u>UPS/FedEx</u>	OSE Pickup	Other		

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<u>Yes</u>	No	1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<u>Yes</u>	No	1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<u>Yes</u>	No	1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<u>Yes</u>	No	1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<u>Yes</u>	No	1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<u>No</u>	1	2	3	4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<u>No</u>	1	2	3	4	
3.2 Were any sample labels missing or illegible?	Yes	<u>No</u>	1	2	3	4	
3.3 Have the correct containers been used for each analysis requested?	<u>Yes</u>	No	1	2	3	4	
3.4 Have the samples been correctly preserved?	<u>Yes</u>	No	<u>N/A</u>	1	2	3	4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	<u>N/A</u>	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<u>Yes</u>	No	1	2	3	4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<u>No</u>	1	2	3	4	
3.8 Was method 5035A used?	<u>Yes</u>	No	N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	<u>2</u>	N/A	1	2	3	4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed



INDEPENDENT DECOMMISSIONING PROJECT MANAGER PROJECT DIARY

DATE : Wednesday, June 12, 2024

WEATHER: Suitable for all Planned Work
Sunny, Light NE Wind, Cool.

PROJECT TITLE: **Caltech Submillimeter Observatory Decommissioning**

Work Hours:

Arrv: **0730**

Report By: **William Wanner**

Dep: **1420**

Monitors on Site:	Cultural - Gerard Mahi Archeological - Colson Balai Construction - CMS Karl Halemano
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Work Items	
Earthwork	<p>Following the 0645 meeting,AECOM, GBI, ASM, CSM, and Taymade arrived at the CSO approx. 0730</p> <p>Activities :</p> <p>0730 J. Deere 350P excavator loading CSO foundation rubble into 10CY dump truck, water truck spraying suppresses fugitive dust.</p> <p>0745 GBI 10CY dump truck loaded with concrete rubble departs to GBI Waikaloa quarry.</p> <p>0745-0815 Three(3) Deluz tractor trailers loaded with concrete rubble from CSO foundation. All departed by 0815 to GBI offsite quarry in Waikaloa. Invasive species inspection of 06/10/2024 still valid.</p> <p>0815-1115 Remove plastic sheets from cesspool stock piles and both excavators with bucket segregating stone and soil.</p> <p>1100-1125 Deluz flat bed trailer hauls off 20CY bin loaded with salvaged UG ducts/wire and leaves empty bin.</p> <p>1150-1220 Three(3) Deluz tractor trailers return, loaded with CSO rubble, hauled to GBI quarry in Waikaloa</p> <p>1145 -1400 10CY dump truck hauls 5 loads stones and 6 loads soil to lower quarry (former batch plant).</p> <p>1145-1400 Excavate/cut cesspool area and segregate stones and soil.</p> <p>1300 Request GBI repair silt screen in vicinity of 20cy bin and cesspool.</p> <p>1330-1415 Perimeter slope outside cesspool and silt fence restored</p> <p>1420 Site leveled, secured and all personnel and monitors left the site.</p>

WORK FORCE & EQUIPMENT						
NAME	POS	HR	Company	EQUIPMENT	MODEL/TYPE	HR
Bronson Sylva	Foreman		GBI	20' Container	Generic	
Brandon Kepano	Equip Op		GBI	Water Truck	Kenworth lic. 469TXU	
Keala Drummondo	Equip Op		GBI	Loader	CAT 950 GC	
Kai'imi Beck	Intern		GBI	Excavator w/ hydraulic hammer chisel point	Deere 350 P	
				Excavator w two buckets and chain lift	Deere 245 P	
				Crew Truck w/ fuel tank	Ford F350	
				Pickup Truck	Ford F150	
				10CY Dump Truck	PeterBuilt	
				4X4 Van	Ford E350	

Signed by: 

Reviewed by: William Wanner

Date 6/12/2024



^ Loading DeLuz Trailer with CSO Rubble for Haul Offsite



^ Loading 20ft Bin with Salvaged Duct/Wire for Haul Offsite



^ Loading Clean Stone for Haul to Batch Plant Area



^ Storing Clean Stone in Batch Plant Area



^ Restoring Slope and Silt Fence at Cesspool



^ End of Day Worksite Condition



INDEPENDENT DECOMMISSIONING PROJECT MANAGER PROJECT DIARY

DATE : Thursday, June 13, 2024

WEATHER: Suitable for all Planned Work
Sunny, Brisk SE Wind, Cool.

PROJECT TITLE: **Caltech Submillimeter Observatory Decommissioning**

Work Hours:

Arrv: **0740**

Report By: **William Wanner**

Dep: **1445**

Monitors on Site:	Cultural - Ron Mitchell Archeological - Colson Balai
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Work Items	
Earthwork	<p>Following the 0645 meeting,AECOM, GBI, ASM, and Taymade arrived at the CSO approx. 0730</p> <p>Activities :</p> <p>0730 J. Deere 350P excavator loading cesspool rubble into 10CY dump truck, water truck spraying suppresses fugitive dust.</p> <p>0740 GBI 10CY dump truck loaded with cesspool rubble departs to GBI Waikaloa quarry.</p> <p>0745-0800 Two(2) Deluz tractor trailers loaded with concrete rubble from CSO foundation. All departed by 0800 to GBI offsite quarry in Waikaloa. Invasive species inspection of 06/10/2024 still valid.</p> <p>0800-1100 245 Excavator pulling stones from north perimeter slope in vicinity of former cesspool and stockpiling vicinity of former equipment shed.</p> <p>0800-1100 350 Excavator excavating about 8ft deep in CSO dome area and removing ducts to former utility building. Ducts loaded into 20cy bin.</p> <p>1145-1205 Two(2) Deluz tractor trailers return, loaded with CSO rubble, hauled to GBI quarry in Waikaloa</p> <p>1100 -1430 10CY dump truck hauls 15 loads of stones to lower quarry (former batch plant).</p> <p>1100-1415 245 Excavator pulling rocks and fine grading north perimeter slope and silt fence restored</p> <p>1445 Site leveled, secured and all personnel and monitors left the site.</p> <p>Note: GBI supt. asked about authority to use the \$100K allowance (force account) for modification to final grading (e.g. large rock arrangement).</p>

WORK FORCE & EQUIPMENT						
NAME	POS	HR	Company	EQUIPMENT	MODEL/TYPE	HR
Jon Steen	Supt		GBI	20' Container	Generic	
Bronson Sylva	Foreman		GBI	Water Truck	Kenworth lic. 469TXU	
Brandon Kepano	Equip Op		GBI	Loader	CAT 950 GC	
Keala Drummondo	Equip Op		GBI	Excavator w/ hydraulic hammer chisel point	Deere 350 P	
Kai'imi Beck	Intern		GBI	Excavator w two buckets and chain lift	Deere 245 P	
Frank Collo	Equip Op		GBI	Crew Truck w/ fuel tank	Ford F350	
				Pickup Truck	Ford F150	
				10CY Dump Truck	PeterBuilt	
				4X4 Van	Ford E350	

Signed by: 

Reviewed by: William Wanner

Date 6/13/2024



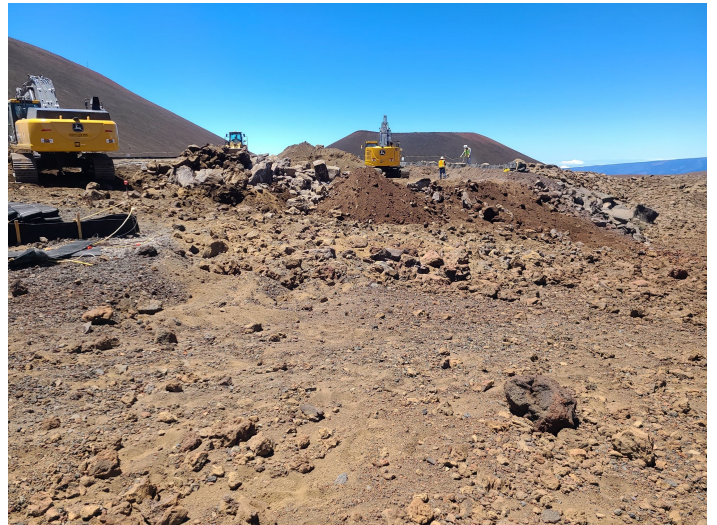
^ Loading DeLuz Trailer with CSO Rubble for Haul Offsite



^ Excavating and Stockpiling Stones North Perimeter



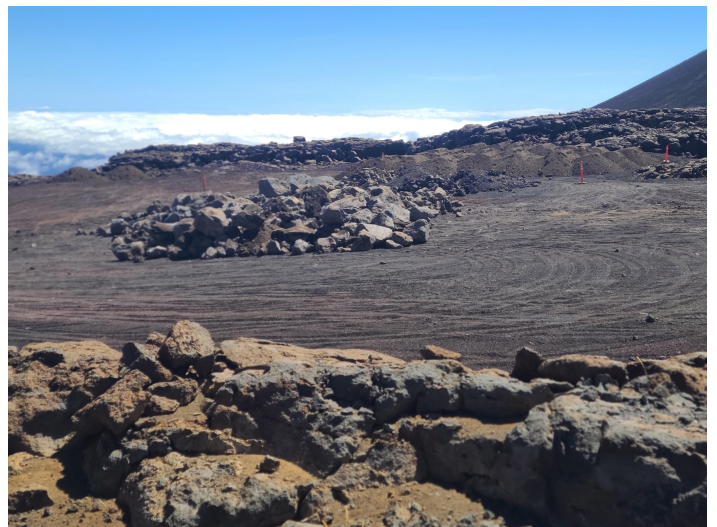
^ Excavating Utility Ducts From CSO Dome to Utility Shed



^ North Perimeter Slope Excavation



^ North Perimeter Finish Grade Transition to Existing Ground



^ Surplus Soil and Rock Stockpiles at Lower Quarry



INDEPENDENT DECOMMISSIONING PROJECT MANAGER PROJECT DIARY

DATE : Friday, June 14, 2024

WEATHER: Suitable for all Planned Work
Sunny, Lt NE Wind, Cool.

PROJECT TITLE: **Caltech Submillimeter Observatory Decommissioning**

Work Hours:

Report By: **William Wanner**

Arrv: **0730**

Dep: **1410**

Monitors on Site:	Cultural - Ron Mitchell Archeological - Colson Balai Construction - CMS Karl Halemano
Work Items	
Earthwork	<p>Following the 0645 meeting, CSM, AECOM, GBI, ASM, and Taymade arrived at the CSO approx. 0730</p> <p>Activities :</p> <p>0730- 1330 J. Deere 350P excavator loading stone (15 loads) and soils (8 loads) into 10CY dump truck for stockpile at lower quarry (batch plant area); water truck spraying suppresses fugitive dust.</p> <p>0740-0810 Three(3) Deluz tractor trailers loaded with concrete rubble from CSO foundation by 350 excavator. All 3 trucks departed by 0810 to GBI offsite quarry in Waikaloa. Invasive species inspection of 06/13/2024 valid.</p> <p>0800-1345 245 Excavator excavating West perimeter slope, and stockpiling larger stones inside southern perimeter for potential finish grade distribution to match surroundings.</p> <p>0930 MKSS truck hauls 2000 gal. Xerex water tank offsite for salvage use.</p> <p>1150-1235 Three(3) Deluz tractor trailers return, loaded with CSO rubble, hauled to GBI quarry in Waikaloa</p> <p>1405 Site leveled, silt fence restored, entry secured, and all personnel and monitors left the site.</p> <p>Notes: * CMS monitor(kh) reviewed the initial northern perimeter grading transition to existing ground and although favorably impressed, advised that CMS management review will be required for acceptance. * GBI awaiting Lehua soil test results to excavate/haul CSO dome area.</p>

WORK FORCE & EQUIPMENT

NAME	POS	HR	Company	EQUIPMENT	MODEL/TYPE	HR
Jon Steen	Supt		GBI	20' Container	Generic	
Bronson Sylva	Foreman		GBI	Water Truck	Kenworth lic. 469TXU	
Brandon Kepano	Equip Op		GBI	Loader	CAT 950 GC	
Keala Drummondo	Equip Op		GBI	Excavator w/ hydraulic hammer chisel point	Deere 350 P	
Kai'imi Beck	Intern		GBI	Excavator w two buckets and chain lift	Deere 245 P	
Frank Collo	Equip Op		GBI	Crew Truck w/ fuel tank	Ford F350	
				Pickup Truck	Ford F150	
				10CY Dump Truck	PeterBuilt	
				4X4 Van	Ford E350	

Signed by: 

Reviewed by: William Wanner

Date 6/14/2024



^ Loading DeLuz Trailer with CSO Rubble for Haul Offsite



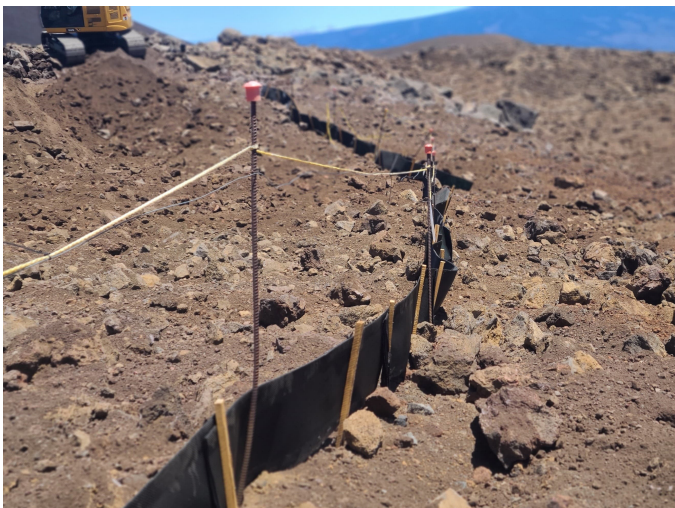
^ Grading Transition to Existing Ground at NW Perimeter



^ Boulder Stockpile South Site Area



^ MKSS Salvaging 2000 gal Water Tank



^ Grading Transition to Existing Ground West Perimeter



^ End of Day Site



UNIVERSITY of HAWAII 'at HILO
CENTER FOR MAUNAKEA
STEWARDSHIP

No. 1592

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 881 HEC semi
Cargo Description: dump trailer

Inspector: James Parker
Inspection location: De Luz Waima
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

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ST00110



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STEWARDSHIP

No. 1593

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 921 HZL trailer
Cargo Description: empty

Inspector: James Parker
Inspection location: De Luz Waima
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

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No. 1594

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 19D HEB Semi
Cargo Description: dump trailer

Inspector: James Parker
Inspection location: De Luz Waima
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

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ST00141



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STEWARDSHIP

No. 1595

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 159 HXX trailer
Cargo Description: empty

Inspector: James Parker
Inspection location: De Luz Waima
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

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STEWARDSHIP

No. 1596

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 188 HEB Semi
Cargo Description: dump trailer

Inspector: James Parker
Inspection location: De Luz Waimea
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

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6T00140



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CENTER FOR MAUNAKEA
STEWARDSHIP

No. 1597

INVASIVE SPECIES INSPECTION CERTIFICATE

Delivery is: ☒ APPROVED ☐ REJECTED

Date and Time: 6/13/24 5pm
Expiration date and time: 6/17/24 5pm
Destination: CSD site summit
Vehicle Lic & Owner: 059 WPA trailer
Cargo Description: empty

Inspector: James Parker
Inspection location: De Luz Waimea
Facility/Representative: Kevin Balog
Concerns identified: N/A
Remediation taken: N/A

Bait used? ☐ Yes ☒ No Rush inspection? ☐ Yes ☒ No Escort Required? ☐ Yes ☒ No
☐ EMERGENCY (no inspection) ☐ NON-COMPLIANT (no inspection requested)

This certificate is proof that the inspection is valid for the stated vehicle, cargo, destination, and time frame.

Drivers should keep this certificate in vehicle when making delivery.

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