

ANALYTICAL REPORT

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Laboratory Job ID: 380-18000-1
Client Project/Site: RED-HILL
Sampling Event: RUSH Weekly Red Hill

For:
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Attn: Mr. Erwin Kawata



Authorized for release by:
10/25/2022 11:20:01 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)



Rachelle Arada
Manager of Project Management
10/25/2022 11:20:01 PM





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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Qualifiers

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| *3 | ISTD response or retention time outside acceptable limits. |
| ^3+ | Reporting Limit Check Standard is outside acceptance limits, high biased |
| E | Result exceeded calibration range. |
| F1 | MS and/or MSD recovery exceeds control limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| S1+ | Surrogate recovery exceeds control limits, high biased. |

GC/MS Semi VOA TICs

| Qualifier | Qualifier Description |
|-----------|---|
| J | Indicates an Estimated Value for TICs |
| N | Presumptive evidence of material. |
| T | Result is a tentatively identified compound (TIC) and an estimated value. |

Subcontract

| Qualifier | Qualifier Description |
|-----------|--------------------------------|
| U | This analyte was not detected. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Case Narrative

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Job ID: 380-18000-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative 380-18000-1

Comments

No additional comments.

Receipt

The samples were received on 8/23/2022 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 5.6° C.

GC/MS Semi VOA

Method 525.2: Internal standard responses were outside of acceptance limits for the following samples: (380-19158-E-1-A) and (380-19158-F-1-A DU). The sample(s) shows evidence of matrix interference. IS1 and IS2 were low. Surrogate 1 and 2 were high. This pattern of failure generally indicates re-extraction with extra dechlorinating agent is required. No backup volume available.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Subcontract non-Sister

See attached subcontract report.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

Methods 8015 Diesel LL (EAL) and Motor Oil, 8015 Gas (Purgeable) LL (EAL): These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Method 625 PAH Physis LL (EAL) + TICs: This method was subcontracted to Physis Environmental Laboratories. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1 **Lab Sample ID: 380-18000-1**

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) **Lab Sample ID: 380-18000-2**

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2 **Lab Sample ID: 380-18000-3**

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P1 **Lab Sample ID: 380-18000-4**

No Detections.

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) **Lab Sample ID: 380-18000-5**

No Detections.

Client Sample ID: TB:AIEA GULCH WELLS P2 **Lab Sample ID: 380-18000-6**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Monrovia



Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-18000-1

Date Collected: 08/22/22 10:09

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 2,4'-DDD | ND | ^3+ | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 2,4'-DDE | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 2,4'-DDT | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 2,6-Dinitrotoluene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 4,4'-DDD | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 4,4'-DDE | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| 4,4'-DDT | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Acenaphthene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Acenaphthylene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Acetochlor | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Alachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| alpha-BHC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| alpha-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Anthracene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Atrazine | ND | ^3+ | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Benz(a)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Benzo[a]pyrene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Benzo[b]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Benzo[k]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| beta-BHC | ND | ^3+ | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Bromacil | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Butachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Butylbenzylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Caffeine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Chlorobenzilate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Chloroneb | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Chlorothalonil (Draconil, Bravo) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Chlorpyrifos | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Chrysene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| delta-BHC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Di(2-ethylhexyl)adipate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Diazinon (Qualitative) | ND | ^3+ | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Diclorvos (DDVP) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Dieldrin | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Diethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Dimethoate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Dimethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Di-n-butyl phthalate | ND | | 0.98 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Di-n-octyl phthalate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Endosulfan I (Alpha) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Endosulfan II (Beta) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Endosulfan sulfate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Endrin | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Endrin aldehyde | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| EPTC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-18000-1

Date Collected: 08/22/22 10:09

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Fluoranthene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Fluorene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| gamma-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Heptachlor | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Heptachlor epoxide (isomer B) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Hexachlorobenzene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Isophorone | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Lindane | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Malathion | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Methoxychlor | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Metolachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Metribuzin | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Molinate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Naphthalene | ND | | 0.29 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Parathion | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Pendimethalin (Penoxaline) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Total Permethrin (mixed isomers) | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Phenanthrene | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Propachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Simazine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Terbacil | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Terbutylazine | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Thiobencarb | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| trans-Nonachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Trifluralin | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|------|----------|----------------|----------------|---------|
| Unknown | 0.52 | T J | ug/L | | 2.27 | | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Decane | 1.1 | T J N | ug/L | | 2.52 | 124-18-5 | 09/01/22 12:00 | 09/02/22 22:24 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 91 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Triphenylphosphate | 97 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:24 | 1 |
| Perylene-d12 | 92 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:24 | 1 |

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| 1-Methylphenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| 2,3,5-Trimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| 2,6-Dimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| 2-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Acenaphthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Acenaphthylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Benz[a]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Benzo[a]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-18000-1

Date Collected: 08/22/22 10:09

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Benzo[b]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Benzo[e]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Benzo[k]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Biphenyl | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Chrysene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Dibenz[a,h]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Dibenzo[a,i]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Dibenzothiophene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Disalicylidenepropanediamine | ND | | 0.1 | 0.05 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Fluorene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Naphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Phenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| Pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 01:02 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| (d10-Acenaphthene) | 47 | | 45 - 118 | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| (d10-Phenanthrene) | 62 | | 56 - 123 | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| (d12-Chrysene) | 62 | | 36 - 142 | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| (d12-Perylene) | 57 | | 36 - 161 | 08/25/22 00:00 | 08/31/22 01:02 | 1 |
| (d8-Naphthalene) | 51 | | 20 - 112 | 08/25/22 00:00 | 08/31/22 01:02 | 1 |

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------|----------------|---------|
| DIESEL | ND | U | 0.027 | | mg/L | | | 08/31/22 18:21 | 1 |
| MOTOR OIL | ND | U | 0.053 | | mg/L | | | 08/31/22 18:21 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOBENZENE | 90 | | 60 - 130 | | 08/31/22 18:21 | 1 |
| HEXACOSANE | 104 | | 60 - 130 | | 08/31/22 18:21 | 1 |

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 16:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOFLUOROBENZENE | 86 | | 60 - 140 | | 08/25/22 16:11 | 1 |

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Date Collected: 08/22/22 09:44

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 2,4'-DDD | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 2,4'-DDE | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 2,4'-DDT | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Date Collected: 08/22/22 09:44

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 2,6-Dinitrotoluene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 4,4'-DDD | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 4,4'-DDE | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| 4,4'-DDT | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Acenaphthene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Acenaphthylene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Acetochlor | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Alachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| alpha-BHC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| alpha-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Anthracene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Atrazine | ND | ^3+ | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Benz(a)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Benzo[a]pyrene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Benzo[b]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Benzo[k]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| beta-BHC | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Bromacil | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Butachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Butylbenzylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Caffeine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Chlorobenzilate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Chloroneb | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Chlorothalonil (Draconil, Bravo) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Chlorpyrifos | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Chrysene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| delta-BHC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Di(2-ethylhexyl)adipate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Diazinon (Qualitative) | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Diclorvos (DDVP) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Dieldrin | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Diethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Dimethoate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Dimethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Di-n-butyl phthalate | ND | | 0.99 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Di-n-octyl phthalate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Endosulfan I (Alpha) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Endosulfan II (Beta) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Endosulfan sulfate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Endrin | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Endrin aldehyde | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| EPTC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Fluoranthene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Fluorene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| gamma-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Heptachlor | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Date Collected: 08/22/22 09:44

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Heptachlor epoxide (isomer B) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Hexachlorobenzene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Isophorone | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Lindane | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Malathion | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Methoxychlor | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Metolachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Metribuzin | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Molinate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Naphthalene | ND | | 0.30 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Parathion | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Pendimethalin (Penoxaline) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Total Permethrin (mixed isomers) | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Phenanthrene | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Propachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Simazine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Terbacil | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Terbutylazine | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Thiobencarb | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| trans-Nonachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Trifluralin | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 22:45 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|------|----------|----------------|----------------|---------|
| Decane | 1.3 | T J N | ug/L | | 2.52 | 124-18-5 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| n-Hexadecanoic acid | 1.4 | T J N | ug/L | | 5.96 | 57-10-3 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Octadecanoic acid | 0.90 | T J N | ug/L | | 6.67 | 57-11-4 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 94 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Triphenylphosphate | 97 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |
| Perylene-d12 | 92 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 22:45 | 1 |

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| 1-Methylphenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| 2,3,5-Trimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| 2,6-Dimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| 2-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Acenaphthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Acenaphthylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Benz[a]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Benzo[a]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Benzo[b]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Benzo[e]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Date Collected: 08/22/22 09:44

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Benzo[k]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Biphenyl | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Chrysene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Dibenz[a,h]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Dibenzo[a,l]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Dibenzothiophene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Disalicylidenepropanediamine | ND | | 0.1 | 0.05 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Fluorene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Naphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Phenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| Pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 02:46 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| (d10-Acenaphthene) | 64 | | 45 - 118 | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| (d10-Phenanthrene) | 62 | | 56 - 123 | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| (d12-Chrysene) | 73 | | 36 - 142 | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| (d12-Perylene) | 62 | | 36 - 161 | 08/25/22 00:00 | 08/31/22 02:46 | 1 |
| (d8-Naphthalene) | 49 | | 20 - 112 | 08/25/22 00:00 | 08/31/22 02:46 | 1 |

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------|----------------|---------|
| DIESEL | ND | U | 0.03 | | mg/L | | | 08/31/22 18:40 | 1 |
| MOTOR OIL | ND | U | 0.059 | | mg/L | | | 08/31/22 18:40 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOBENZENE | 81 | | 60 - 130 | | 08/31/22 18:40 | 1 |
| HEXACOSANE | 97 | | 60 - 130 | | 08/31/22 18:40 | 1 |

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 18:39 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOFLUOROBENZENE | 86 | | 60 - 140 | | 08/25/22 18:39 | 1 |

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Date Collected: 08/22/22 10:36

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 2,4'-DDD | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 2,4'-DDE | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 2,4'-DDT | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 2,6-Dinitrotoluene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 4,4'-DDD | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| 4,4'-DDE | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |

Eurofins Eaton Monrovia

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Date Collected: 08/22/22 10:36

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| 4,4'-DDT | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Acenaphthene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Acenaphthylene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Acetochlor | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Alachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| alpha-BHC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| alpha-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Anthracene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Atrazine | ND | ^3+ | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Benz(a)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Benzo[a]pyrene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Benzo[b]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Benzo[k]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| beta-BHC | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Bromacil | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Butachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Butylbenzylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Caffeine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Chlorobenzilate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Chloroneb | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Chlorothalonil (Draconil, Bravo) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Chlorpyrifos | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Chrysene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| delta-BHC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Di(2-ethylhexyl)adipate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Diazinon (Qualitative) | ND | ^3+ | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Diclorvos (DDVP) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Dieldrin | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Diethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Dimethoate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Dimethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Di-n-butyl phthalate | ND | | 0.99 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Di-n-octyl phthalate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Endosulfan I (Alpha) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Endosulfan II (Beta) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Endosulfan sulfate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Endrin | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Endrin aldehyde | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| EPTC | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Fluoranthene | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Fluorene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| gamma-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Heptachlor | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Heptachlor epoxide (isomer B) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Hexachlorobenzene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Date Collected: 08/22/22 10:36

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------|-----------|-------|------|---|----------------|----------------|---------|
| Indeno[1,2,3-cd]pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Isophorone | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Lindane | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Malathion | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Methoxychlor | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Metolachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Metribuzin | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Molinate | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Naphthalene | ND | | 0.30 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Parathion | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Pendimethalin (Penoxaline) | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Total Permethrin (mixed isomers) | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Phenanthrene | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Propachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Simazine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Terbacil | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Terbutylazine | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Thiobencarb | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| trans-Nonachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Trifluralin | ND | | 0.099 | ug/L | | 09/01/22 12:00 | 09/02/22 23:05 | 1 |

| Tentatively Identified Compound | Est. Result | Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|---------------------------------|-------------|-----------|------|---|-------|-----------|----------------|----------------|---------|
| Decane | 1.3 | T J N | ug/L | | 2.53 | 124-18-5 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| n-Hexadecanoic acid | 0.65 | T J N | ug/L | | 5.96 | 57-10-3 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| tri(2-Ethylhexyl) trimellitate | 1.0 | T J N | ug/L | | 15.34 | 3319-31-1 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| 2-Nitro-m-xylene | 94 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Triphenylphosphate | 97 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |
| Perylene-d12 | 92 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 23:05 | 1 |

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| 1-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| 1-Methylphenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| 2,3,5-Trimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| 2,6-Dimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| 2-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Acenaphthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Acenaphthylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benz[a]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benzo[a]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benzo[b]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benzo[e]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Benzo[k]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Biphenyl | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Chrysene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Date Collected: 08/22/22 10:36

Matrix: Drinking Water

Date Received: 08/23/22 10:40

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Dibenz[a,h]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Dibenzo[a,l]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Dibenzothiophene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Disalicylidenepropanediamine | ND | | 0.1 | 0.05 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Fluorene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Naphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Perylene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Phenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| Pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/25/22 00:00 | 08/31/22 04:29 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------------|----------------|---------|
| (d10-Acenaphthene) | 47 | | 45 - 118 | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| (d10-Phenanthrene) | 56 | | 56 - 123 | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| (d12-Chrysene) | 57 | | 36 - 142 | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| (d12-Perylene) | 51 | | 36 - 161 | 08/25/22 00:00 | 08/31/22 04:29 | 1 |
| (d8-Naphthalene) | 46 | | 20 - 112 | 08/25/22 00:00 | 08/31/22 04:29 | 1 |

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------|----------------|---------|
| DIESEL | ND | U | 0.024 | | mg/L | | | 08/31/22 18:58 | 1 |
| MOTOR OIL | ND | U | 0.047 | | mg/L | | | 08/31/22 18:58 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOBENZENE | 82 | | 60 - 130 | | 08/31/22 18:58 | 1 |
| HEXACOSANE | 94 | | 60 - 130 | | 08/31/22 18:58 | 1 |

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 19:16 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOFLUOROBENZENE | 88 | | 60 - 140 | | 08/25/22 19:16 | 1 |

Client Sample ID: TB:AIEA GULCH WELLS P1

Lab Sample ID: 380-18000-4

Date Collected: 08/22/22 10:09

Matrix: Water

Date Received: 08/23/22 10:40

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 14:08 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|----------|----------------|---------|
| BROMOFLUOROBENZENE | 84 | | 60 - 140 | | 08/25/22 14:08 | 1 |

Client Sample Results

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-5

Date Collected: 08/22/22 09:44

Matrix: Water

Date Received: 08/23/22 10:40

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 14:56 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| BROMOFLUOROBENZENE | 83 | | 60 - 140 | | | | | 08/25/22 14:56 | 1 |

Client Sample ID: TB:AIEA GULCH WELLS P2

Lab Sample ID: 380-18000-6

Date Collected: 08/22/22 10:36

Matrix: Water

Date Received: 08/23/22 10:40

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 15:33 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| BROMOFLUOROBENZENE | 84 | | 60 - 140 | | | | | 08/25/22 15:33 | 1 |

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-18000-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte | Result | Qualifier | Unit | EPAMCL | RL | Method | Prep Type |
|-------------------------------|--------|-----------|------|--------|-------|--------|-----------|
| | | | | Limit | | | |
| Alachlor | ND | | ug/L | 2 | 0.049 | 525.2 | Total/NA |
| Atrazine | ND | ^3+ | ug/L | 3 | 0.049 | 525.2 | Total/NA |
| Benzo[a]pyrene | ND | | ug/L | 0.2 | 0.020 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | ND | | ug/L | 400 | 0.59 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | ND | | ug/L | 6 | 0.59 | 525.2 | Total/NA |
| Endrin | ND | | ug/L | 2 | 0.098 | 525.2 | Total/NA |
| Heptachlor | ND | | ug/L | 0.4 | 0.039 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | ND | | ug/L | 0.2 | 0.049 | 525.2 | Total/NA |
| Hexachlorobenzene | ND | | ug/L | 1 | 0.049 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | ND | | ug/L | 50 | 0.049 | 525.2 | Total/NA |
| Lindane | ND | | ug/L | 0.2 | 0.039 | 525.2 | Total/NA |
| Methoxychlor | ND | | ug/L | 40 | 0.098 | 525.2 | Total/NA |
| Simazine | ND | | ug/L | 4 | 0.049 | 525.2 | Total/NA |

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte | Result | Qualifier | Unit | EPAMCL | RL | Method | Prep Type |
|-------------------------------|--------|-----------|------|--------|-------|--------|-----------|
| | | | | Limit | | | |
| Alachlor | ND | | ug/L | 2 | 0.049 | 525.2 | Total/NA |
| Atrazine | ND | ^3+ | ug/L | 3 | 0.049 | 525.2 | Total/NA |
| Benzo[a]pyrene | ND | | ug/L | 0.2 | 0.020 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | ND | | ug/L | 400 | 0.59 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | ND | | ug/L | 6 | 0.59 | 525.2 | Total/NA |
| Endrin | ND | | ug/L | 2 | 0.099 | 525.2 | Total/NA |
| Heptachlor | ND | | ug/L | 0.4 | 0.039 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | ND | | ug/L | 0.2 | 0.049 | 525.2 | Total/NA |
| Hexachlorobenzene | ND | | ug/L | 1 | 0.049 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | ND | | ug/L | 50 | 0.049 | 525.2 | Total/NA |
| Lindane | ND | | ug/L | 0.2 | 0.039 | 525.2 | Total/NA |
| Methoxychlor | ND | | ug/L | 40 | 0.099 | 525.2 | Total/NA |
| Simazine | ND | | ug/L | 4 | 0.049 | 525.2 | Total/NA |

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte | Result | Qualifier | Unit | EPAMCL | RL | Method | Prep Type |
|-------------------------------|--------|-----------|------|--------|-------|--------|-----------|
| | | | | Limit | | | |
| Alachlor | ND | | ug/L | 2 | 0.049 | 525.2 | Total/NA |
| Atrazine | ND | ^3+ | ug/L | 3 | 0.049 | 525.2 | Total/NA |
| Benzo[a]pyrene | ND | | ug/L | 0.2 | 0.020 | 525.2 | Total/NA |
| Di(2-ethylhexyl)adipate | ND | | ug/L | 400 | 0.59 | 525.2 | Total/NA |
| Bis(2-ethylhexyl) phthalate | ND | | ug/L | 6 | 0.59 | 525.2 | Total/NA |
| Endrin | ND | | ug/L | 2 | 0.099 | 525.2 | Total/NA |
| Heptachlor | ND | | ug/L | 0.4 | 0.039 | 525.2 | Total/NA |
| Heptachlor epoxide (isomer B) | ND | | ug/L | 0.2 | 0.049 | 525.2 | Total/NA |

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Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 2 (Continued)

Lab Sample ID: 380-18000-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte | Result | Qualifier | Unit | EPAMCL | RL | Method | Prep Type |
|---------------------------|--------|-----------|------|--------|-------|--------|-----------|
| | | | | Limit | | | |
| Hexachlorobenzene | ND | | ug/L | 1 | 0.049 | 525.2 | Total/NA |
| Hexachlorocyclopentadiene | ND | | ug/L | 50 | 0.049 | 525.2 | Total/NA |
| Lindane | ND | | ug/L | 0.2 | 0.039 | 525.2 | Total/NA |
| Methoxychlor | ND | | ug/L | 40 | 0.099 | 525.2 | Total/NA |
| Simazine | ND | | ug/L | 4 | 0.049 | 525.2 | Total/NA |

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|---------------|----------------------------|--|-----------------|-----------------|
| | | 2NMX (70-130) | TPP (70-130) | PRY (70-130) |
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | 91 | 97 | 92 |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | 94 | 97 | 92 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | 94 | 97 | 92 |

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 TPP = Triphenylphosphate
 PRY = Perylene-d12

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|------------------------|--|-----------------|-----------------|
| | | 2NMX (70-130) | TPP (70-130) | PRY (70-130) |
| 380-19148-F-1-A MS | Matrix Spike | 82 | 103 | 92 |
| 380-19158-F-1-A DU | Duplicate | 53573 S1+ *3 | 6029 S1+ *3 | 78 *3 |
| LCS 380-15877/3-A | Lab Control Sample | 97 | 93 | 96 |
| LCSD 380-15877/4-A | Lab Control Sample Dup | 91 | 95 | 94 |
| MB 380-15877/1-A | Method Blank | 94 | 97 | 87 |
| MRL 380-15877/2-A | Lab Control Sample | 85 | 110 | 85 |

Surrogate Legend
 2NMX = 2-Nitro-m-xylene
 TPP = Triphenylphosphate
 PRY = Perylene-d12

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | |
|---------------|----------------------------|--|----------------------|-----------------|-----------------|-----------------|
| | | Acenaphtl (45-118) | Phenanth (56-123) | CRY (36-142) | NPT (20-112) | PRY (36-161) |
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | 47 | 62 | 62 | 51 | 57 |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | 64 | 62 | 73 | 49 | 62 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | 47 | 56 | 57 | 46 | 51 |

Surrogate Legend
 (d10-Acenaphthene) = (d10-Acenaphthene)
 (d10-Phenanthrene) = (d10-Phenanthrene)
 CRY = (d12-Chrysene)
 NPT = (d8-Naphthalene)
 PRY = (d12-Perylene)

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Matrix: water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | |
|---------------|--------------------|--|----------------------|-----------------|-----------------|-----------------|
| | | Acenaphtl (65-113) | Phenanth (80-111) | CRY (60-139) | NPT (44-119) | PRY (36-161) |
| 99653-B1 | Method Blank | 94 | 93 | 99 | 87 | 91 |
| 99653-BS1 | Lab Control Sample | 107 | 94 | 90 | 108 | 101 |

Eurofins Eaton Monrovia

Surrogate Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Matrix: water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | | | |
|---------------|------------------------|--|----------------------|-----------------|-----------------|-----------------|
| | | Acenaphtl (65-113) | Phenanth (80-111) | CRY (60-139) | NPT (44-119) | PRY (36-161) |
| 99653-BS2 | Lab Control Sample Dup | 104 | 100 | 93 | 84 | 96 |

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)

(d10-Phenanthrene) = (d10-Phenanthrene)

CRY = (d12-Chrysene)

NPT = (d8-Naphthalene)

PRY = (d12-Perylene)

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------|----------------------------|--|----------------------|
| | | BB (60-130) | XXACOSAI (60-130) |
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | 90 | 104 |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | 81 | 97 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | 82 | 94 |

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------|------------------|--|----------------------|
| | | BB (60-130) | XXACOSAI (60-130) |
| 22DSH045WB | Method Blank | | |

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | |
|---------------|--------------------|--|----------------------|
| | | BB (60-130) | XXACOSAI (60-130) |
| 22DSH045WL | Lab Control Sample | 63 | 103 |

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Drinking Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |
|---------------|-------------------------|--|
| | | BFB (60-140) |
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | 86 |

Eurofins Eaton Monrovia

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics (Continued)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (60-140) |
|---------------|----------------------------|-----------------|
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | 86 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | 88 |

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB |
|---------------|------------------|-----|
| 22VG39H10B | Method Blank | |

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (70-130) |
|---------------|--------------------|-----------------|
| 22VG39H10C | LCD | 104 |
| 22VG39H10L | Lab Control Sample | 108 |

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (60-140) |
|---------------|-----------------------------------|-----------------|
| 380-18000-4 | TB:AIEA GULCH WELLS P1 | 84 |
| 380-18000-5 | TB: AIEA WELLS PUMPS 1&2 (260) | 83 |
| 380-18000-6 | TB:AIEA GULCH WELLS P2 | 84 |

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Matrix: WATER

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

| Lab Sample ID | Client Sample ID | BFB (60-140) |
|---------------|------------------------|-----------------|
| 22H294-01M | Matrix Spike | 110 |
| 22H294-01S | Matrix Spike Duplicate | 109 |

Surrogate Legend

BFB = BROMOFLUOROBENZENE

QC Sample Results

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 380-15877/1-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|--------------|-----------------|-------|------|---|----------------|----------------|---------|
| 2,4'-DDD | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 2,4'-DDE | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 2,4'-DDT | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 2,6-Dinitrotoluene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 4,4'-DDD | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 4,4'-DDE | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| 4,4'-DDT | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Acenaphthene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Acenaphthylene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Acetochlor | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Alachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| alpha-BHC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| alpha-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Anthracene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Atrazine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Benz(a)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Benzo[a]pyrene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Benzo[b]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Benzo[k]fluoranthene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| beta-BHC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Bromacil | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Butachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Butylbenzylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Caffeine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Chlorobenzilate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Chloroneb | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Chlorothalonil (Draconil, Bravo) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Chlorpyrifos | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Chrysene | ND | | 0.020 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| delta-BHC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Di(2-ethylhexyl)adipate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 0.59 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Diazinon (Qualitative) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Diclorvos (DDVP) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Dieldrin | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Diethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Dimethoate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Dimethylphthalate | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Di-n-butyl phthalate | ND | | 0.98 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Di-n-octyl phthalate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Endosulfan I (Alpha) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Endosulfan II (Beta) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Endosulfan sulfate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Endrin | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Endrin aldehyde | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 380-15877/1-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|-----------|--------------|-------|------|---|----------------|----------------|---------|
| EPTC | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Fluoranthene | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Fluorene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| gamma-Chlordane | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Heptachlor | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Heptachlor epoxide (isomer B) | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Hexachlorobenzene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Isophorone | ND | | 0.49 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Lindane | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Malathion | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Methoxychlor | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Metolachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Metribuzin | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Molinate | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Naphthalene | ND | | 0.29 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Parathion | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Pendimethalin (Penoxaline) | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Total Permethrin (mixed isomers) | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Phenanthrene | ND | | 0.039 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Propachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Pyrene | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Simazine | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Terbacil | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Terbutylazine | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Thiobencarb | ND | | 0.20 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| trans-Nonachlor | ND | | 0.049 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| Trifluralin | ND | | 0.098 | ug/L | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |

| <i>Tentatively Identified Compound</i> | MB Est. Result | MB Qualifier | Unit | D | RT | CAS No. | Prepared | Analyzed | Dil Fac |
|--|----------------|--------------|------|---|----|---------|----------------|----------------|---------|
| <i>Tentatively Identified Compound</i> | None | | ug/L | | | | 09/01/22 12:00 | 09/02/22 17:59 | 1 |

| <i>Surrogate</i> | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---------------------------|--------------|--------------|----------|----------------|----------------|---------|
| <i>2-Nitro-m-xylene</i> | 94 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| <i>Triphenylphosphate</i> | 97 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 17:59 | 1 |
| <i>Perylene-d12</i> | 87 | | 70 - 130 | 09/01/22 12:00 | 09/02/22 17:59 | 1 |

Lab Sample ID: LCS 380-15877/3-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|------------|---------------|------|---|------|-------------|
| 2,4'-DDD | 1.98 | 1.98 | | ug/L | | 100 | 70 - 130 |
| 2,4'-DDE | 1.98 | 1.96 | | ug/L | | 99 | 70 - 130 |
| 2,4'-DDT | 1.98 | 2.07 | | ug/L | | 105 | 70 - 130 |
| 2,4-Dinitrotoluene | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 |
| 2,6-Dinitrotoluene | 1.98 | 1.83 | | ug/L | | 93 | 70 - 130 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-15877/3-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|-------------|------------|---------------|------|---|------|-------------|
| 4,4'-DDD | 1.98 | 2.05 | | ug/L | | 104 | 70 - 130 |
| 4,4'-DDE | 1.98 | 1.95 | | ug/L | | 99 | 70 - 130 |
| 4,4'-DDT | 1.98 | 1.93 | | ug/L | | 97 | 70 - 130 |
| Acenaphthene | 1.98 | 1.75 | | ug/L | | 89 | 70 - 130 |
| Acenaphthylene | 1.98 | 1.78 | | ug/L | | 90 | 70 - 130 |
| Acetochlor | 1.98 | 1.91 | | ug/L | | 97 | 70 - 130 |
| Alachlor | 1.98 | 1.91 | | ug/L | | 97 | 70 - 130 |
| alpha-BHC | 1.98 | 1.81 | | ug/L | | 92 | 70 - 130 |
| alpha-Chlordane | 1.98 | 1.59 | | ug/L | | 81 | 70 - 130 |
| Anthracene | 1.98 | 1.83 | | ug/L | | 93 | 70 - 130 |
| Atrazine | 1.98 | 1.96 | | ug/L | | 99 | 70 - 130 |
| Benz(a)anthracene | 1.98 | 2.06 | | ug/L | | 104 | 70 - 130 |
| Benzo[a]pyrene | 1.98 | 1.97 | | ug/L | | 100 | 70 - 130 |
| Benzo[b]fluoranthene | 1.98 | 2.01 | | ug/L | | 102 | 70 - 130 |
| Benzo[g,h,i]perylene | 1.98 | 1.94 | | ug/L | | 98 | 70 - 130 |
| Benzo[k]fluoranthene | 1.98 | 2.10 | | ug/L | | 106 | 70 - 130 |
| beta-BHC | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 |
| Bromacil | 1.98 | 1.87 | | ug/L | | 95 | 70 - 130 |
| Butachlor | 1.98 | 2.05 | | ug/L | | 104 | 70 - 130 |
| Butylbenzylphthalate | 1.98 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Caffeine | 1.98 | 0.917 | | ug/L | | 46 | 45 - 137 |
| Chlorobenzilate | 1.98 | 2.24 | | ug/L | | 113 | 70 - 130 |
| Chloroneb | 1.98 | 2.04 | | ug/L | | 104 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | 1.98 | 2.15 | | ug/L | | 109 | 70 - 130 |
| Chlorpyrifos | 1.98 | 2.18 | | ug/L | | 110 | 70 - 130 |
| Chrysene | 1.98 | 2.14 | | ug/L | | 108 | 70 - 130 |
| delta-BHC | 1.98 | 1.86 | | ug/L | | 94 | 70 - 130 |
| Di(2-ethylhexyl)adipate | 1.98 | 1.99 | | ug/L | | 101 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | 1.98 | 1.93 | | ug/L | | 98 | 70 - 130 |
| Diazinon (Qualitative) | 1.98 | 1.70 | | ug/L | | 86 | 15 - 132 |
| Dibenz(a,h)anthracene | 1.98 | 1.95 | | ug/L | | 99 | 70 - 130 |
| Diclorvos (DDVP) | 1.98 | 1.99 | | ug/L | | 101 | 70 - 130 |
| Dieldrin | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 |
| Diethylphthalate | 1.98 | 1.93 | | ug/L | | 98 | 70 - 130 |
| Dimethoate | 1.98 | 0.864 | | ug/L | | 44 | 35 - 100 |
| Dimethylphthalate | 1.98 | 1.78 | | ug/L | | 90 | 70 - 130 |
| Di-n-butyl phthalate | 3.95 | 4.24 | | ug/L | | 107 | 70 - 130 |
| Di-n-octyl phthalate | 1.98 | 1.65 | | ug/L | | 84 | 70 - 130 |
| Endosulfan I (Alpha) | 1.98 | 2.00 | | ug/L | | 101 | 70 - 130 |
| Endosulfan II (Beta) | 1.98 | 2.20 | | ug/L | | 111 | 70 - 130 |
| Endosulfan sulfate | 1.98 | 1.98 | | ug/L | | 100 | 70 - 130 |
| Endrin | 1.98 | 1.99 | | ug/L | | 101 | 70 - 130 |
| Endrin aldehyde | 1.98 | 2.36 | | ug/L | | 120 | 70 - 130 |
| EPTC | 1.98 | 1.93 | | ug/L | | 98 | 70 - 130 |
| Fluoranthene | 1.98 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Fluorene | 1.98 | 1.87 | | ug/L | | 95 | 70 - 130 |
| gamma-Chlordane | 1.98 | 1.61 | | ug/L | | 82 | 70 - 130 |
| Heptachlor | 1.98 | 1.89 | | ug/L | | 96 | 70 - 130 |
| Heptachlor epoxide (isomer B) | 1.98 | 1.75 | | ug/L | | 89 | 70 - 130 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-15877/3-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------|-------------|------------|---------------|------|---|------|-------------|
| Hexachlorobenzene | 1.98 | 1.86 | | ug/L | | 94 | 70 - 130 |
| Hexachlorocyclopentadiene | 1.98 | 2.13 | | ug/L | | 108 | 70 - 130 |
| Indeno[1,2,3-cd]pyrene | 1.98 | 1.97 | | ug/L | | 100 | 70 - 130 |
| Isophorone | 1.98 | 1.86 | | ug/L | | 94 | 70 - 130 |
| Lindane | 1.98 | 1.86 | | ug/L | | 94 | 70 - 130 |
| Malathion | 1.98 | 2.06 | | ug/L | | 105 | 70 - 130 |
| Methoxychlor | 1.98 | 2.17 | | ug/L | | 110 | 70 - 130 |
| Metolachlor | 1.98 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Metribuzin | 1.98 | 1.71 | | ug/L | | 87 | 70 - 130 |
| Molinate | 1.98 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Naphthalene | 1.98 | 1.88 | | ug/L | | 95 | 70 - 130 |
| Parathion | 1.98 | 2.12 | | ug/L | | 107 | 70 - 130 |
| Pendimethalin (Penoxaline) | 1.98 | 1.95 | | ug/L | | 99 | 70 - 130 |
| Phenanthrene | 1.98 | 1.84 | | ug/L | | 93 | 70 - 130 |
| Propachlor | 1.98 | 2.12 | | ug/L | | 107 | 70 - 130 |
| Pyrene | 1.98 | 2.15 | | ug/L | | 109 | 70 - 130 |
| Simazine | 1.98 | 2.08 | | ug/L | | 105 | 70 - 130 |
| Terbacil | 1.98 | 2.03 | | ug/L | | 103 | 70 - 130 |
| Terbutylazine | 1.98 | 1.90 | | ug/L | | 96 | 70 - 130 |
| Thiobencarb | 1.98 | 1.91 | | ug/L | | 97 | 70 - 130 |
| trans-Nonachlor | 1.98 | 1.62 | | ug/L | | 82 | 70 - 130 |
| Trifluralin | 1.98 | 1.97 | | ug/L | | 100 | 70 - 130 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|--------------------|---------------|---------------|----------|
| 2-Nitro-m-xylene | 97 | | 70 - 130 |
| Triphenylphosphate | 93 | | 70 - 130 |
| Perylene-d12 | 96 | | 70 - 130 |

Lab Sample ID: LCSD 380-15877/4-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 2,4'-DDD | 1.97 | 2.02 | | ug/L | | 103 | 70 - 130 | 2 | 20 |
| 2,4'-DDE | 1.97 | 2.02 | | ug/L | | 102 | 70 - 130 | 3 | 20 |
| 2,4'-DDT | 1.97 | 2.16 | | ug/L | | 109 | 70 - 130 | 4 | 20 |
| 2,4-Dinitrotoluene | 1.97 | 2.08 | | ug/L | | 105 | 70 - 130 | 9 | 20 |
| 2,6-Dinitrotoluene | 1.97 | 1.89 | | ug/L | | 96 | 70 - 130 | 3 | 20 |
| 4,4'-DDD | 1.97 | 2.09 | | ug/L | | 106 | 70 - 130 | 2 | 20 |
| 4,4'-DDE | 1.97 | 2.01 | | ug/L | | 102 | 70 - 130 | 3 | 20 |
| 4,4'-DDT | 1.97 | 1.99 | | ug/L | | 101 | 70 - 130 | 4 | 20 |
| Acenaphthene | 1.97 | 1.69 | | ug/L | | 86 | 70 - 130 | 3 | 20 |
| Acenaphthylene | 1.97 | 1.82 | | ug/L | | 92 | 70 - 130 | 2 | 20 |
| Acetochlor | 1.97 | 1.95 | | ug/L | | 99 | 70 - 130 | 2 | 20 |
| Alachlor | 1.97 | 1.94 | | ug/L | | 98 | 70 - 130 | 2 | 20 |
| alpha-BHC | 1.97 | 1.98 | | ug/L | | 100 | 70 - 130 | 9 | 20 |
| alpha-Chlordane | 1.97 | 1.63 | | ug/L | | 83 | 70 - 130 | 2 | 20 |
| Anthracene | 1.97 | 1.81 | | ug/L | | 92 | 70 - 130 | 1 | 20 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-15877/4-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|----------------------------------|-------------|-------------|----------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| Atrazine | 1.97 | 2.24 | | ug/L | | 114 | 70 - 130 | 14 | 20 | |
| Benz(a)anthracene | 1.97 | 2.13 | | ug/L | | 108 | 70 - 130 | 3 | 20 | |
| Benzo[a]pyrene | 1.97 | 1.92 | | ug/L | | 97 | 70 - 130 | 2 | 20 | |
| Benzo[b]fluoranthene | 1.97 | 1.96 | | ug/L | | 100 | 70 - 130 | 2 | 20 | |
| Benzo[g,h,i]perylene | 1.97 | 1.87 | | ug/L | | 95 | 70 - 130 | 4 | 20 | |
| Benzo[k]fluoranthene | 1.97 | 2.14 | | ug/L | | 109 | 70 - 130 | 2 | 20 | |
| beta-BHC | 1.97 | 2.11 | | ug/L | | 107 | 70 - 130 | 10 | 20 | |
| Bromacil | 1.97 | 2.00 | | ug/L | | 101 | 70 - 130 | 7 | 20 | |
| Butachlor | 1.97 | 2.08 | | ug/L | | 106 | 70 - 130 | 2 | 20 | |
| Butylbenzylphthalate | 1.97 | 2.07 | | ug/L | | 105 | 70 - 130 | 2 | 20 | |
| Caffeine | 1.97 | 0.994 | | ug/L | | 50 | 45 - 137 | 8 | 20 | |
| Chlorobenzilate | 1.97 | 2.32 | | ug/L | | 118 | 70 - 130 | 4 | 20 | |
| Chloroneb | 1.97 | 2.15 | | ug/L | | 109 | 70 - 130 | 5 | 20 | |
| Chlorothalonil (Draconil, Bravo) | 1.97 | 2.18 | | ug/L | | 110 | 70 - 130 | 1 | 20 | |
| Chlorpyrifos | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 | 0 | 20 | |
| Chrysene | 1.97 | 2.16 | | ug/L | | 110 | 70 - 130 | 1 | 20 | |
| delta-BHC | 1.97 | 1.88 | | ug/L | | 95 | 70 - 130 | 1 | 20 | |
| Di(2-ethylhexyl)adipate | 1.97 | 2.04 | | ug/L | | 103 | 70 - 130 | 2 | 20 | |
| Bis(2-ethylhexyl) phthalate | 1.97 | 1.88 | | ug/L | | 95 | 70 - 130 | 2 | 20 | |
| Diazinon (Qualitative) | 1.97 | 1.89 | | ug/L | | 96 | 15 - 132 | 11 | 20 | |
| Dibenz(a,h)anthracene | 1.97 | 1.93 | | ug/L | | 98 | 70 - 130 | 1 | 20 | |
| Diclorvos (DDVP) | 1.97 | 1.98 | | ug/L | | 100 | 70 - 130 | 1 | 20 | |
| Dieldrin | 1.97 | 1.97 | | ug/L | | 100 | 70 - 130 | 4 | 20 | |
| Diethylphthalate | 1.97 | 2.04 | | ug/L | | 103 | 70 - 130 | 6 | 20 | |
| Dimethoate | 1.97 | 1.01 | | ug/L | | 51 | 35 - 100 | 15 | 20 | |
| Dimethylphthalate | 1.97 | 1.85 | | ug/L | | 94 | 70 - 130 | 4 | 20 | |
| Di-n-butyl phthalate | 3.95 | 4.33 | | ug/L | | 110 | 70 - 130 | 2 | 20 | |
| Di-n-octyl phthalate | 1.97 | 1.61 | | ug/L | | 82 | 70 - 130 | 3 | 20 | |
| Endosulfan I (Alpha) | 1.97 | 1.99 | | ug/L | | 101 | 70 - 130 | 0 | 20 | |
| Endosulfan II (Beta) | 1.97 | 2.22 | | ug/L | | 113 | 70 - 130 | 1 | 20 | |
| Endosulfan sulfate | 1.97 | 2.04 | | ug/L | | 103 | 70 - 130 | 3 | 20 | |
| Endrin | 1.97 | 2.05 | | ug/L | | 104 | 70 - 130 | 3 | 20 | |
| Endrin aldehyde | 1.97 | 2.34 | | ug/L | | 118 | 70 - 130 | 1 | 20 | |
| EPTC | 1.97 | 1.91 | | ug/L | | 97 | 70 - 130 | 1 | 20 | |
| Fluoranthene | 1.97 | 2.10 | | ug/L | | 106 | 70 - 130 | 4 | 20 | |
| Fluorene | 1.97 | 1.91 | | ug/L | | 97 | 70 - 130 | 2 | 20 | |
| gamma-Chlordane | 1.97 | 1.65 | | ug/L | | 84 | 70 - 130 | 2 | 20 | |
| Heptachlor | 1.97 | 1.85 | | ug/L | | 94 | 70 - 130 | 2 | 20 | |
| Heptachlor epoxide (isomer B) | 1.97 | 1.81 | | ug/L | | 92 | 70 - 130 | 3 | 20 | |
| Hexachlorobenzene | 1.97 | 1.98 | | ug/L | | 100 | 70 - 130 | 7 | 20 | |
| Hexachlorocyclopentadiene | 1.97 | 1.98 | | ug/L | | 100 | 70 - 130 | 7 | 20 | |
| Indeno[1,2,3-cd]pyrene | 1.97 | 1.93 | | ug/L | | 98 | 70 - 130 | 2 | 20 | |
| Isophorone | 1.97 | 1.71 | | ug/L | | 87 | 70 - 130 | 8 | 20 | |
| Lindane | 1.97 | 2.07 | | ug/L | | 105 | 70 - 130 | 11 | 20 | |
| Malathion | 1.97 | 2.13 | | ug/L | | 108 | 70 - 130 | 3 | 20 | |
| Methoxychlor | 1.97 | 2.17 | | ug/L | | 110 | 70 - 130 | 0 | 20 | |
| Metolachlor | 1.97 | 2.07 | | ug/L | | 105 | 70 - 130 | 2 | 20 | |
| Metribuzin | 1.97 | 1.76 | | ug/L | | 89 | 70 - 130 | 3 | 20 | |
| Molinate | 1.97 | 2.08 | | ug/L | | 105 | 70 - 130 | 2 | 20 | |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-15877/4-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| | | | | | | | | | |
| Naphthalene | 1.97 | 1.80 | | ug/L | | 91 | 70 - 130 | 4 | 20 |
| Parathion | 1.97 | 2.20 | | ug/L | | 111 | 70 - 130 | 4 | 20 |
| Pendimethalin (Penoxaline) | 1.97 | 2.03 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| Phenanthrene | 1.97 | 1.81 | | ug/L | | 92 | 70 - 130 | 2 | 20 |
| Propachlor | 1.97 | 2.30 | | ug/L | | 116 | 70 - 130 | 8 | 20 |
| Pyrene | 1.97 | 2.22 | | ug/L | | 112 | 70 - 130 | 3 | 20 |
| Simazine | 1.97 | 2.37 | | ug/L | | 120 | 70 - 130 | 13 | 20 |
| Terbacil | 1.97 | 2.19 | | ug/L | | 111 | 70 - 130 | 8 | 20 |
| Terbutylazine | 1.97 | 2.18 | | ug/L | | 110 | 70 - 130 | 13 | 20 |
| Thiobencarb | 1.97 | 1.98 | | ug/L | | 101 | 70 - 130 | 4 | 20 |
| trans-Nonachlor | 1.97 | 1.69 | | ug/L | | 85 | 70 - 130 | 4 | 20 |
| Trifluralin | 1.97 | 2.06 | | ug/L | | 104 | 70 - 130 | 4 | 20 |

| Surrogate | LCSD | | Limits |
|--------------------|-----------|-----------|----------|
| | %Recovery | Qualifier | |
| 2-Nitro-m-xylene | 91 | | 70 - 130 |
| Triphenylphosphate | 95 | | 70 - 130 |
| Perylene-d12 | 94 | | 70 - 130 |

Lab Sample ID: MRL 380-15877/2-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------|-------------|------------|---------------|------|---|------|-------------|
| | | | | | | | |
| 2,4'-DDD | 0.0986 | 0.158 | ^3+ | ug/L | | 160 | 50 - 150 |
| 2,4'-DDE | 0.0986 | 0.103 | | ug/L | | 104 | 50 - 150 |
| 2,4'-DDT | 0.0986 | 0.0923 | J | ug/L | | 94 | 50 - 150 |
| 2,4-Dinitrotoluene | 0.0986 | 0.104 | | ug/L | | 105 | 50 - 150 |
| 2,6-Dinitrotoluene | 0.0986 | 0.0966 | J | ug/L | | 98 | 50 - 150 |
| 4,4'-DDD | 0.0986 | 0.0943 | J | ug/L | | 96 | 50 - 150 |
| 4,4'-DDE | 0.0986 | 0.0921 | J | ug/L | | 93 | 50 - 150 |
| 4,4'-DDT | 0.0986 | 0.118 | | ug/L | | 120 | 50 - 150 |
| Acenaphthene | 0.0986 | 0.0875 | J | ug/L | | 89 | 50 - 150 |
| Acenaphthylene | 0.0986 | 0.0749 | J | ug/L | | 76 | 50 - 150 |
| Acetochlor | 0.0493 | 0.0459 | J | ug/L | | 93 | 50 - 150 |
| Alachlor | 0.0493 | 0.0589 | | ug/L | | 119 | 50 - 150 |
| alpha-BHC | 0.0986 | 0.141 | | ug/L | | 143 | 50 - 150 |
| alpha-Chlordane | 0.0493 | 0.0598 | | ug/L | | 121 | 50 - 150 |
| Anthracene | 0.0197 | 0.0219 | | ug/L | | 111 | 50 - 150 |
| Atrazine | 0.0493 | 0.0774 | ^3+ | ug/L | | 157 | 50 - 150 |
| Benz(a)anthracene | 0.0493 | 0.0448 | J | ug/L | | 91 | 50 - 150 |
| Benzo[a]pyrene | 0.0197 | 0.0149 | J | ug/L | | 75 | 50 - 150 |
| Benzo[b]fluoranthene | 0.0197 | 0.0175 | J | ug/L | | 89 | 50 - 150 |
| Benzo[g,h,i]perylene | 0.0493 | 0.0403 | J | ug/L | | 82 | 50 - 150 |
| Benzo[k]fluoranthene | 0.0197 | 0.0172 | J | ug/L | | 87 | 50 - 150 |
| beta-BHC | 0.0986 | 0.168 | ^3+ | ug/L | | 170 | 50 - 150 |
| Bromacil | 0.0986 | 0.0988 | J | ug/L | | 100 | 50 - 150 |
| Butachlor | 0.0493 | 0.0646 | | ug/L | | 131 | 50 - 150 |
| Butylbenzylphthalate | 0.148 | 0.199 | J | ug/L | | 135 | 50 - 150 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-15877/2-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|----------------|---------------|------------------|------|---|------|----------------|
| Caffeine | 0.0493 | 0.0303 | J | ug/L | | 61 | 50 - 150 |
| Chlorobenzilate | 0.0986 | 0.124 | | ug/L | | 126 | 50 - 150 |
| Chloroneb | 0.0986 | 0.109 | | ug/L | | 110 | 50 - 150 |
| Chlorothalonil (Draconil, Bravo) | 0.0986 | 0.107 | | ug/L | | 108 | 50 - 150 |
| Chlorpyrifos | 0.0493 | 0.0568 | | ug/L | | 115 | 50 - 150 |
| Chrysene | 0.0197 | 0.0182 | J | ug/L | | 92 | 50 - 150 |
| delta-BHC | 0.0986 | 0.133 | | ug/L | | 135 | 50 - 150 |
| Di(2-ethylhexyl)adipate | 0.296 | 0.330 | J | ug/L | | 112 | 50 - 150 |
| Bis(2-ethylhexyl) phthalate | 0.592 | 0.710 | | ug/L | | 120 | 50 - 150 |
| Diazinon (Qualitative) | 0.0986 | 0.132 | ^3+ | ug/L | | 134 | 15 - 132 |
| Dibenz(a,h)anthracene | 0.0493 | 0.0401 | J | ug/L | | 81 | 50 - 150 |
| Diclorvos (DDVP) | 0.0493 | 0.0438 | J | ug/L | | 89 | 50 - 150 |
| Dieldrin | 0.0986 | 0.116 | J | ug/L | | 118 | 50 - 150 |
| Diethylphthalate | 0.148 | 0.201 | J | ug/L | | 136 | 50 - 150 |
| Dimethoate | 0.0986 | 0.0625 | J | ug/L | | 63 | 35 - 100 |
| Dimethylphthalate | 0.296 | 0.325 | J | ug/L | | 110 | 50 - 150 |
| Di-n-butyl phthalate | 0.296 | 0.307 | J | ug/L | | 104 | 49 - 243 |
| Di-n-octyl phthalate | 0.0986 | 0.106 | | ug/L | | 108 | 50 - 150 |
| Endosulfan I (Alpha) | 0.0986 | 0.122 | | ug/L | | 124 | 50 - 150 |
| Endosulfan II (Beta) | 0.0986 | 0.126 | | ug/L | | 128 | 50 - 150 |
| Endosulfan sulfate | 0.0986 | 0.120 | | ug/L | | 122 | 50 - 150 |
| Endrin | 0.0986 | 0.117 | | ug/L | | 118 | 50 - 150 |
| Endrin aldehyde | 0.0986 | ND | | ug/L | | 78 | 50 - 150 |
| EPTC | 0.0986 | 0.0845 | J | ug/L | | 86 | 50 - 150 |
| Fluoranthene | 0.0493 | 0.0599 | J | ug/L | | 122 | 50 - 150 |
| Fluorene | 0.0493 | 0.0566 | | ug/L | | 115 | 50 - 150 |
| gamma-Chlordane | 0.0493 | 0.0602 | | ug/L | | 122 | 50 - 150 |
| Heptachlor | 0.0394 | 0.0513 | | ug/L | | 130 | 50 - 150 |
| Heptachlor epoxide (isomer B) | 0.0493 | 0.0474 | J | ug/L | | 96 | 50 - 150 |
| Hexachlorobenzene | 0.0493 | 0.0557 | | ug/L | | 113 | 50 - 150 |
| Hexachlorocyclopentadiene | 0.0493 | 0.0387 | J | ug/L | | 78 | 50 - 150 |
| Indeno[1,2,3-cd]pyrene | 0.0493 | 0.0399 | J | ug/L | | 81 | 50 - 150 |
| Isophorone | 0.0986 | 0.0837 | J | ug/L | | 85 | 50 - 150 |
| Lindane | 0.0493 | 0.0584 | | ug/L | | 118 | 50 - 150 |
| Malathion | 0.0986 | 0.114 | | ug/L | | 115 | 50 - 150 |
| Methoxychlor | 0.0986 | 0.121 | | ug/L | | 123 | 50 - 150 |
| Metolachlor | 0.0493 | 0.0656 | | ug/L | | 133 | 50 - 150 |
| Metribuzin | 0.0493 | 0.0685 | | ug/L | | 139 | 50 - 150 |
| Molinate | 0.0986 | 0.0968 | J | ug/L | | 98 | 50 - 150 |
| Naphthalene | 0.0986 | 0.0854 | J | ug/L | | 87 | 50 - 150 |
| Parathion | 0.0986 | 0.118 | | ug/L | | 119 | 50 - 150 |
| Pendimethalin (Penoxaline) | 0.0986 | 0.124 | | ug/L | | 126 | 50 - 150 |
| Phenanthrene | 0.0197 | 0.0251 | J | ug/L | | 127 | 50 - 150 |
| Propachlor | 0.0493 | 0.0576 | | ug/L | | 117 | 50 - 150 |
| Pyrene | 0.0493 | 0.0574 | | ug/L | | 116 | 50 - 150 |
| Simazine | 0.0493 | 0.0733 | | ug/L | | 149 | 50 - 150 |
| Terbacil | 0.0986 | 0.106 | | ug/L | | 107 | 50 - 150 |
| Terbutylazine | 0.0986 | 0.142 | | ug/L | | 144 | 50 - 150 |
| Thiobencarb | 0.0986 | 0.133 | J | ug/L | | 135 | 50 - 150 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-15877/2-A
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|------------------|------------------|------------------|------|---|------|----------------|
| trans-Nonachlor | 0.0493 | 0.0614 | | ug/L | | 125 | 50 - 150 |
| Trifluralin | 0.0986 | 0.131 | | ug/L | | 133 | 50 - 150 |
| Surrogate | | | | | | | |
| | MRL %Recovery | MRL Qualifier | Limits | | | | |
| 2-Nitro-m-xylene | 85 | | 70 - 130 | | | | |
| Triphenylphosphate | 110 | | 70 - 130 | | | | |
| Perylene-d12 | 85 | | 70 - 130 | | | | |

Lab Sample ID: 380-19148-F-1-A MS
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|----------------|
| 2,4'-DDD | ND | ^3+ | 1.95 | 2.12 | | ug/L | | 108 | 70 - 130 |
| 2,4'-DDE | ND | | 1.95 | 2.13 | | ug/L | | 109 | 70 - 130 |
| 2,4'-DDT | ND | | 1.95 | 2.27 | | ug/L | | 116 | 70 - 130 |
| 2,4-Dinitrotoluene | ND | | 1.95 | 2.46 | | ug/L | | 126 | 70 - 130 |
| 2,6-Dinitrotoluene | ND | | 1.95 | 2.15 | | ug/L | | 110 | 70 - 130 |
| 4,4'-DDD | ND | | 1.95 | 2.24 | | ug/L | | 115 | 70 - 130 |
| 4,4'-DDE | ND | | 1.95 | 2.12 | | ug/L | | 109 | 70 - 130 |
| 4,4'-DDT | ND | | 1.95 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Acenaphthene | ND | | 1.95 | 1.73 | | ug/L | | 89 | 70 - 130 |
| Acenaphthylene | ND | | 1.95 | 1.80 | | ug/L | | 92 | 70 - 130 |
| Acetochlor | ND | | 1.95 | 2.02 | | ug/L | | 104 | 70 - 130 |
| Alachlor | ND | | 1.95 | 2.04 | | ug/L | | 105 | 70 - 130 |
| alpha-BHC | ND | | 1.95 | 2.34 | | ug/L | | 120 | 70 - 130 |
| alpha-Chlordane | ND | | 1.95 | 1.68 | | ug/L | | 86 | 70 - 130 |
| Anthracene | ND | | 1.95 | 1.82 | | ug/L | | 93 | 70 - 130 |
| Atrazine | ND | ^3+ F1 | 1.95 | 3.00 | F1 | ug/L | | 154 | 70 - 130 |
| Benz(a)anthracene | ND | | 1.95 | 2.30 | | ug/L | | 118 | 70 - 130 |
| Benzo[a]pyrene | ND | | 1.95 | 1.91 | | ug/L | | 98 | 70 - 130 |
| Benzo[b]fluoranthene | ND | | 1.95 | 1.99 | | ug/L | | 102 | 70 - 130 |
| Benzo[g,h,i]perylene | ND | | 1.95 | 1.81 | | ug/L | | 93 | 70 - 130 |
| Benzo[k]fluoranthene | ND | | 1.95 | 2.03 | | ug/L | | 104 | 70 - 130 |
| beta-BHC | ND | ^3+ F1 | 1.95 | 2.75 | F1 | ug/L | | 141 | 70 - 130 |
| Bromacil | ND | | 1.95 | 2.08 | | ug/L | | 107 | 70 - 130 |
| Butachlor | ND | | 1.95 | 2.20 | | ug/L | | 112 | 70 - 130 |
| Butylbenzylphthalate | ND | | 1.95 | 2.19 | | ug/L | | 112 | 70 - 130 |
| Caffeine | ND | | 1.95 | 1.07 | | ug/L | | 55 | 46 - 144 |
| Chlorobenzilate | ND | | 1.95 | 2.45 | | ug/L | | 125 | 70 - 130 |
| Chloroneb | ND | | 1.95 | 2.44 | | ug/L | | 125 | 70 - 130 |
| Chlorothalonil (Draconil, Bravo) | ND | | 1.95 | 2.30 | | ug/L | | 118 | 70 - 130 |
| Chlorpyrifos | ND | | 1.95 | 2.35 | | ug/L | | 121 | 70 - 130 |
| Chrysene | ND | | 1.95 | 2.18 | | ug/L | | 112 | 70 - 130 |
| delta-BHC | ND | | 1.95 | 1.99 | | ug/L | | 102 | 70 - 130 |
| Di(2-ethylhexyl)adipate | ND | | 1.95 | 2.15 | | ug/L | | 110 | 70 - 130 |
| Bis(2-ethylhexyl) phthalate | ND | | 1.95 | 1.85 | | ug/L | | 95 | 70 - 130 |
| Diazinon (Qualitative) | ND | ^3+ | 1.95 | 2.44 | | ug/L | | 125 | 15 - 132 |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-19148-F-1-A MS
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | %Rec | %Rec Limits |
|-------------------------------|--------|------------------|------------------|---------------|-----------|------|---|------|----------------|
| | Result | Qualifier | Added | Result | Qualifier | | | | |
| Dibenz(a,h)anthracene | ND | | 1.95 | 1.84 | | ug/L | | 94 | 70 - 130 |
| Diclorvos (DDVP) | ND | | 1.95 | 1.88 | | ug/L | | 96 | 70 - 130 |
| Dieldrin | ND | | 1.95 | 2.11 | | ug/L | | 108 | 70 - 130 |
| Diethylphthalate | ND | | 1.95 | 2.50 | | ug/L | | 128 | 70 - 130 |
| Dimethoate | ND | | 1.95 | 1.31 | | ug/L | | 67 | 34 - 111 |
| Dimethylphthalate | ND | | 1.95 | 2.17 | | ug/L | | 111 | 70 - 130 |
| Di-n-butyl phthalate | ND | | 3.90 | 4.52 | | ug/L | | 116 | 70 - 130 |
| Di-n-octyl phthalate | ND | | 1.95 | 1.64 | | ug/L | | 84 | 70 - 130 |
| Endosulfan I (Alpha) | ND | | 1.95 | 2.14 | | ug/L | | 110 | 70 - 130 |
| Endosulfan II (Beta) | ND | | 1.95 | 2.39 | | ug/L | | 122 | 70 - 130 |
| Endosulfan sulfate | ND | | 1.95 | 2.21 | | ug/L | | 113 | 70 - 130 |
| Endrin | ND | | 1.95 | 2.12 | | ug/L | | 108 | 70 - 130 |
| Endrin aldehyde | ND | | 1.95 | 2.43 | | ug/L | | 124 | 70 - 130 |
| EPTC | ND | | 1.95 | 1.76 | | ug/L | | 90 | 70 - 130 |
| Fluoranthene | ND | | 1.95 | 2.22 | | ug/L | | 114 | 70 - 130 |
| Fluorene | ND | | 1.95 | 2.14 | | ug/L | | 110 | 70 - 130 |
| gamma-Chlordane | ND | | 1.95 | 1.74 | | ug/L | | 89 | 70 - 130 |
| Heptachlor | ND | | 1.95 | 1.87 | | ug/L | | 96 | 70 - 130 |
| Heptachlor epoxide (isomer B) | ND | | 1.95 | 1.84 | | ug/L | | 94 | 70 - 130 |
| Hexachlorobenzene | ND | | 1.95 | 2.36 | | ug/L | | 121 | 70 - 130 |
| Hexachlorocyclopentadiene | ND | | 1.95 | 1.76 | | ug/L | | 90 | 70 - 130 |
| Indeno[1,2,3-cd]pyrene | ND | | 1.95 | 1.88 | | ug/L | | 96 | 70 - 130 |
| Isophorone | ND | | 1.95 | 1.57 | | ug/L | | 80 | 70 - 130 |
| Lindane | ND | F1 | 1.95 | 2.56 | F1 | ug/L | | 131 | 70 - 130 |
| Malathion | ND | | 1.95 | 2.26 | | ug/L | | 116 | 70 - 130 |
| Methoxychlor | ND | | 1.95 | 2.21 | | ug/L | | 113 | 70 - 130 |
| Metolachlor | ND | | 1.95 | 2.22 | | ug/L | | 114 | 70 - 130 |
| Metribuzin | ND | | 1.95 | 1.77 | | ug/L | | 91 | 70 - 130 |
| Molinate | ND | | 1.95 | 2.25 | | ug/L | | 115 | 70 - 130 |
| Naphthalene | ND | | 1.95 | 1.64 | | ug/L | | 84 | 70 - 130 |
| Parathion | ND | | 1.95 | 2.32 | | ug/L | | 119 | 70 - 130 |
| Pendimethalin (Penoxaline) | ND | | 1.95 | 2.22 | | ug/L | | 114 | 70 - 130 |
| Phenanthrene | ND | | 1.95 | 1.83 | | ug/L | | 94 | 70 - 130 |
| Propachlor | ND | F1 | 1.95 | 2.90 | F1 | ug/L | | 149 | 70 - 130 |
| Pyrene | ND | | 1.95 | 2.34 | | ug/L | | 120 | 70 - 130 |
| Simazine | ND | F1 | 1.95 | 3.16 | F1 | ug/L | | 162 | 70 - 130 |
| Terbacil | ND | | 1.95 | 2.20 | | ug/L | | 113 | 70 - 130 |
| Terbutylazine | ND | F1 | 1.95 | 2.82 | F1 | ug/L | | 144 | 70 - 130 |
| Thiobencarb | ND | | 1.95 | 2.07 | | ug/L | | 106 | 70 - 130 |
| trans-Nonachlor | ND | | 1.95 | 1.82 | | ug/L | | 93 | 70 - 130 |
| Trifluralin | ND | | 1.95 | 2.42 | | ug/L | | 124 | 70 - 130 |
| | | MS MS | | | | | | | |
| Surrogate | | %Recovery | Qualifier | Limits | | | | | |
| 2-Nitro-m-xylene | | 82 | | 70 - 130 | | | | | |
| Triphenylphosphate | | 103 | | 70 - 130 | | | | | |
| Perylene-d12 | | 92 | | 70 - 130 | | | | | |

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-19158-F-1-A DU
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|----------------------------------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| 2,4'-DDD | ND | ^3+ *3 | ND | *3 | ug/L | | NC | 20 |
| 2,4'-DDE | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 2,4'-DDT | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 2,4-Dinitrotoluene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 2,6-Dinitrotoluene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 4,4'-DDD | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 4,4'-DDE | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| 4,4'-DDT | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Acenaphthene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Acenaphthylene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Acetochlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Alachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| alpha-BHC | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| alpha-Chlordane | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Anthracene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Atrazine | ND | ^3+ *3 | ND | *3 | ug/L | | NC | 20 |
| Benz(a)anthracene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Benzo[a]pyrene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Benzo[b]fluoranthene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Benzo[g,h,i]perylene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Benzo[k]fluoranthene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| beta-BHC | ND | ^3+ *3 | ND | *3 | ug/L | | NC | 20 |
| Bromacil | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Butachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Butylbenzylphthalate | ND | *3 | 2.07 | *3 | ug/L | | NC | 20 |
| Caffeine | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Chlorobenzilate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Chloroneb | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Chlorothalonil (Draconil, Bravo) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Chlorpyrifos | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Chrysene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| delta-BHC | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Di(2-ethylhexyl)adipate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Bis(2-ethylhexyl) phthalate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Diazinon (Qualitative) | ND | ^3+ *3 | ND | *3 | ug/L | | NC | 20 |
| Dibenz(a,h)anthracene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Diclorvos (DDVP) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Dieldrin | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Diethylphthalate | ND | *3 | 19.3 E | *3 | ug/L | | NC | 20 |
| Dimethoate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Dimethylphthalate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Di-n-butyl phthalate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Di-n-octyl phthalate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Endosulfan I (Alpha) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Endosulfan II (Beta) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Endosulfan sulfate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Endrin | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Endrin aldehyde | ND | *3 | ND | *3 | ug/L | | NC | 20 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-19158-F-1-A DU
Matrix: Water
Analysis Batch: 16128

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 15877

| Analyte | Sample | Sample | DU | DU | Unit | D | RPD | Limit |
|----------------------------------|--------|-----------|--------|-----------|------|---|-----|-------|
| | Result | Qualifier | Result | Qualifier | | | | |
| EPTC | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Fluoranthene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Fluorene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| gamma-Chlordane | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Heptachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Heptachlor epoxide (isomer B) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Hexachlorobenzene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Hexachlorocyclopentadiene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Indeno[1,2,3-cd]pyrene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Isophorone | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Lindane | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Malathion | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Methoxychlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Metolachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Metribuzin | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Molinate | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Naphthalene | ND | *3 | 2.42 | *3 | ug/L | | NC | 20 |
| Parathion | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Pendimethalin (Penoxaline) | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Total Permethrin (mixed isomers) | ND | | ND | | ug/L | | NC | 20 |
| Phenanthrene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Propachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Pyrene | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Simazine | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Terbacil | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Terbutylazine | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Thiobencarb | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| trans-Nonachlor | ND | *3 | ND | *3 | ug/L | | NC | 20 |
| Trifluralin | ND | *3 | ND | *3 | ug/L | | NC | 20 |

| Surrogate | DU | DU | Limits |
|--------------------|-----------|--------|----------|
| %Recovery | Qualifier | | |
| 2-Nitro-m-xylene | 53573 | S1+ *3 | 70 - 130 |
| Triphenylphosphate | 6029 | S1+ *3 | 70 - 130 |
| Perylene-d12 | 78 | *3 | 70 - 130 |

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Lab Sample ID: 99653-B1
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Blank | Blank | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| 1-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| 1-Methylphenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| 2,3,5-Trimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| 2,6-Dimethylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| 2-Methylnaphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Acenaphthene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Acenaphthylene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99653-B1
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Blank Result | Blank Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|-----------------|-------|-------|------|---|----------------|----------------|---------|
| Anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benz[a]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benzo[a]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benzo[b]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benzo[e]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Benzo[k]fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Biphenyl | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Chrysene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Dibenz[a,h]anthracene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Dibenzo[a,l]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Dibenzothiophene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Disalicylidenepropanediamine | ND | | 0.1 | 0.05 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Fluoranthene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Fluorene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Naphthalene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Perylene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Phenanthrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| Pyrene | ND | | 0.005 | 0.001 | µg/L | | 08/22/22 00:00 | 08/30/22 14:40 | 1 |

| Surrogate | Blank %Recovery | Blank Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|-----------------|-----------------|----------|----------------|----------------|---------|
| (d10-Acenaphthene) | 94 | | 65 - 113 | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| (d10-Phenanthrene) | 93 | | 80 - 111 | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| (d12-Chrysene) | 99 | | 60 - 139 | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| (d12-Perylene) | 91 | | 36 - 161 | 08/22/22 00:00 | 08/30/22 14:40 | 1 |
| (d8-Naphthalene) | 87 | | 44 - 119 | 08/22/22 00:00 | 08/30/22 14:40 | 1 |

Lab Sample ID: 99653-BS1
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|----------------------------|-------------|------------|---------------|------|---|------|----------|
| 1-Methylnaphthalene | 0.5 | 0.569 | | µg/L | | 114 | 49 - 117 |
| 1-Methylphenanthrene | 0.5 | 0.488 | | µg/L | | 98 | 66 - 127 |
| 2,3,5-Trimethylnaphthalene | 0.5 | 0.502 | | µg/L | | 100 | 57 - 120 |
| 2,6-Dimethylnaphthalene | 0.5 | 0.584 | | µg/L | | 117 | 54 - 117 |
| 2-Methylnaphthalene | 0.5 | 0.545 | | µg/L | | 109 | 47 - 130 |
| Acenaphthene | 0.5 | 0.597 | | µg/L | | 119 | 53 - 131 |
| Acenaphthylene | 0.5 | 0.561 | | µg/L | | 112 | 43 - 140 |
| Anthracene | 0.5 | 0.425 | | µg/L | | 85 | 58 - 135 |
| Benz[a]anthracene | 0.5 | 0.428 | | µg/L | | 86 | 55 - 145 |
| Benzo[a]pyrene | 0.5 | 0.468 | | µg/L | | 94 | 51 - 143 |
| Benzo[b]fluoranthene | 0.5 | 0.517 | | µg/L | | 103 | 46 - 165 |
| Benzo[e]pyrene | 0.5 | 0.492 | | µg/L | | 98 | 42 - 152 |
| Benzo[g,h,i]perylene | 0.5 | 0.429 | | µg/L | | 86 | 63 - 133 |
| Benzo[k]fluoranthene | 0.5 | 0.495 | | µg/L | | 99 | 56 - 145 |
| Biphenyl | 0.5 | 0.597 | | µg/L | | 119 | 56 - 119 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99653-BS1
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------|-------------|------------|---------------|------|---|------|-------------|
| Chrysene | 0.5 | 0.426 | | µg/L | | 85 | 56 - 141 |
| Dibenz[a,h]anthracene | 0.5 | 0.526 | | µg/L | | 105 | 55 - 150 |
| Dibenzo[a,l]pyrene | 0.5 | 0.503 | | µg/L | | 101 | 50 - 150 |
| Dibenzothiophene | 0.5 | 0.409 | | µg/L | | 82 | 75 - 113 |
| Disalicylidenepranediamine | 50 | 39.6 | | µg/L | | 79 | 50 - 150 |
| Fluoranthene | 0.5 | 0.468 | | µg/L | | 94 | 60 - 146 |
| Fluorene | 0.5 | 0.517 | | µg/L | | 103 | 58 - 131 |
| Indeno[1,2,3-cd]pyrene | 0.5 | 0.519 | | µg/L | | 104 | 50 - 151 |
| Naphthalene | 0.5 | 0.476 | | µg/L | | 95 | 41 - 126 |
| Perylene | 0.5 | 0.486 | | µg/L | | 97 | 48 - 141 |
| Phenanthrene | 0.5 | 0.417 | | µg/L | | 83 | 67 - 127 |
| Pyrene | 0.5 | 0.466 | | µg/L | | 93 | 54 - 156 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|--------------------|---------------|---------------|----------|
| (d10-Acenaphthene) | 107 | | 65 - 113 |
| (d10-Phenanthrene) | 94 | | 80 - 111 |
| (d12-Chrysene) | 90 | | 60 - 139 |
| (d12-Perylene) | 101 | | 36 - 161 |
| (d8-Naphthalene) | 108 | | 44 - 119 |

Lab Sample ID: 99653-BS2
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Spike Added | LCS DUP Result | LCS DUP Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------|-------------|----------------|-------------------|------|---|------|-------------|-----|-----------|
| 1-Methylnaphthalene | 0.5 | 0.461 | | µg/L | | 92 | 49 - 117 | 21 | 30 |
| 1-Methylphenanthrene | 0.5 | 0.511 | | µg/L | | 102 | 66 - 127 | 4 | 30 |
| 2,3,5-Trimethylnaphthalene | 0.5 | 0.492 | | µg/L | | 98 | 57 - 120 | 2 | 30 |
| 2,6-Dimethylnaphthalene | 0.5 | 0.494 | | µg/L | | 99 | 54 - 117 | 17 | 30 |
| 2-Methylnaphthalene | 0.5 | 0.432 | | µg/L | | 86 | 47 - 130 | 24 | 30 |
| Acenaphthene | 0.5 | 0.494 | | µg/L | | 99 | 53 - 131 | 18 | 30 |
| Acenaphthylene | 0.5 | 0.479 | | µg/L | | 96 | 43 - 140 | 15 | 30 |
| Anthracene | 0.5 | 0.44 | | µg/L | | 88 | 58 - 135 | 3 | 30 |
| Benz[a]anthracene | 0.5 | 0.447 | | µg/L | | 89 | 55 - 145 | 3 | 30 |
| Benzo[a]pyrene | 0.5 | 0.448 | | µg/L | | 90 | 51 - 143 | 4 | 30 |
| Benzo[b]fluoranthene | 0.5 | 0.493 | | µg/L | | 99 | 46 - 165 | 4 | 30 |
| Benzo[e]pyrene | 0.5 | 0.488 | | µg/L | | 98 | 42 - 152 | 0 | 30 |
| Benzo[g,h,i]perylene | 0.5 | 0.431 | | µg/L | | 86 | 63 - 133 | 0 | 30 |
| Benzo[k]fluoranthene | 0.5 | 0.479 | | µg/L | | 96 | 56 - 145 | 3 | 30 |
| Biphenyl | 0.5 | 0.443 | | µg/L | | 89 | 56 - 119 | 29 | 30 |
| Chrysene | 0.5 | 0.437 | | µg/L | | 87 | 56 - 141 | 2 | 30 |
| Dibenz[a,h]anthracene | 0.5 | 0.516 | | µg/L | | 103 | 55 - 150 | 2 | 30 |
| Dibenzo[a,l]pyrene | 0.5 | 0.451 | | µg/L | | 90 | 50 - 150 | 12 | 30 |
| Dibenzothiophene | 0.5 | 0.446 | | µg/L | | 89 | 75 - 113 | 8 | 30 |
| Disalicylidenepranediamine | 50 | 43.5 | | µg/L | | 87 | 50 - 150 | 10 | 30 |
| Fluoranthene | 0.5 | 0.503 | | µg/L | | 101 | 60 - 146 | 7 | 30 |
| Fluorene | 0.5 | 0.485 | | µg/L | | 97 | 58 - 131 | 6 | 30 |
| Indeno[1,2,3-cd]pyrene | 0.5 | 0.497 | | µg/L | | 99 | 50 - 151 | 5 | 30 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 99653-BS2
Matrix: water
Analysis Batch: O-38098

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-38098_P

| Analyte | Spike Added | LCS DUP Result | LCS DUP Qualifier | Unit | D | %Rec | %Rec | | RPD | RPD Limit |
|--------------|-------------|----------------|-------------------|------|---|------|----------|-----|-----|-----------|
| | | | | | | | Limits | RPD | | |
| Naphthalene | 0.5 | 0.384 | | µg/L | | 77 | 41 - 126 | 21 | | 30 |
| Perylene | 0.5 | 0.451 | | µg/L | | 90 | 48 - 141 | 7 | | 30 |
| Phenanthrene | 0.5 | 0.451 | | µg/L | | 90 | 67 - 127 | 8 | | 30 |
| Pyrene | 0.5 | 0.504 | | µg/L | | 101 | 54 - 156 | 8 | | 30 |

| Surrogate | LCS DUP %Recovery | LCS DUP Qualifier | Limits |
|--------------------|-------------------|-------------------|----------|
| (d10-Acenaphthene) | 104 | | 65 - 113 |
| (d10-Phenanthrene) | 100 | | 80 - 111 |
| (d12-Chrysene) | 93 | | 60 - 139 |
| (d12-Perylene) | 96 | | 36 - 161 |
| (d8-Naphthalene) | 84 | | 44 - 119 |

Method: 8015 Diesel LL (EAL) and Motor Oil - 8015 - TPH DRO/ORO

Lab Sample ID: 22DSH045WB
Matrix: WATER
Analysis Batch: 22DSH045W

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| DIESEL | ND | U | 0.025 | | mg/L | | | 08/31/22 14:16 | 1 |
| MOTOR OIL | ND | U | 0.05 | | mg/L | | | 08/31/22 14:16 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------|--------------|--------------|--------|----------|----------------|---------|
| BROMOBENZENE | | | | | 08/31/22 14:16 | 1 |
| HEXACOSANE | | | | | 08/31/22 14:16 | 1 |

Lab Sample ID: 22DSH045WL
Matrix: WATER
Analysis Batch: 22DSH045W

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec | |
|---------|-------------|------------|---------------|------|---|------|----------|-----|
| | | | | | | | Limits | RPD |
| DIESEL | 2.5 | 2.03 | | mg/L | | 81 | 50 - 130 | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|--------------|---------------|---------------|----------|
| BROMOBENZENE | 63 | | 60 - 130 |
| HEXACOSANE | 103 | | 60 - 130 |

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22VG39H10B
Matrix: WATER
Analysis Batch: 22VG39H10

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----|------|---|----------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| GASOLINE | ND | U | 0.02 | | mg/L | | | 08/25/22 12:17 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|--------------------|--------------|--------------|--------|----------|----------------|---------|
| BROMOFLUOROBENZENE | | | | | 08/25/22 12:17 | 1 |

Eurofins Eaton Monrovia

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22VG39H10L
Matrix: WATER
Analysis Batch: 22VG39H10

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|-------------|---------------|---------------|------|---|------|-------------|
| GASOLINE | 0.5 | 0.454 | | mg/L | | 91 | 60 - 130 |
| Surrogate | | | | | | | |
| | %Recovery | LCS Qualifier | LCS Limits | | | | |
| BROMOFLUOROBENZENE | 108 | | 70 - 130 | | | | |

Lab Sample ID: 22H294-01M
Matrix: WATER
Analysis Batch: 22VG39H10

Client Sample ID: Matrix Spike
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|--------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| GASOLINE | ND | | 0.5 | 0.461 | | mg/L | | 92 | 50 - 130 |
| Surrogate | | | | | | | | | |
| | %Recovery | MS Qualifier | MS Limits | | | | | | |
| BROMOFLUOROBENZENE | 110 | | 60 - 140 | | | | | | |

Lab Sample ID: 22H294-01S
Matrix: WATER
Analysis Batch: 22VG39H10

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|--------------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| GASOLINE | ND | | 0.5 | 0.453 | | mg/L | | 91 | 50 - 130 | 2 | 30 |
| Surrogate | | | | | | | | | | | |
| | %Recovery | MSD Qualifier | MSD Limits | | | | | | | | |
| BROMOFLUOROBENZENE | 109 | | 60 - 140 | | | | | | | | |

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

GC/MS Semi VOA

Prep Batch: 15877

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|----------------------------|-----------|----------------|--------|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | 525.2 | |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | 525.2 | |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | |
| MB 380-15877/1-A | Method Blank | Total/NA | Water | 525.2 | |
| LCS 380-15877/3-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| LCSD 380-15877/4-A | Lab Control Sample Dup | Total/NA | Water | 525.2 | |
| MRL 380-15877/2-A | Lab Control Sample | Total/NA | Water | 525.2 | |
| 380-19148-F-1-A MS | Matrix Spike | Total/NA | Water | 525.2 | |
| 380-19158-F-1-A DU | Duplicate | Total/NA | Water | 525.2 | |

Analysis Batch: 16128

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|----------------------------|-----------|----------------|--------|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | 525.2 | 15877 |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | 525.2 | 15877 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 525.2 | 15877 |
| MB 380-15877/1-A | Method Blank | Total/NA | Water | 525.2 | 15877 |
| LCS 380-15877/3-A | Lab Control Sample | Total/NA | Water | 525.2 | 15877 |
| LCSD 380-15877/4-A | Lab Control Sample Dup | Total/NA | Water | 525.2 | 15877 |
| MRL 380-15877/2-A | Lab Control Sample | Total/NA | Water | 525.2 | 15877 |
| 380-19148-F-1-A MS | Matrix Spike | Total/NA | Water | 525.2 | 15877 |
| 380-19158-F-1-A DU | Duplicate | Total/NA | Water | 525.2 | 15877 |

Subcontract

Analysis Batch: O-38098

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|----------------------------|-----------|----------------|-----------------------------------|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |
| 99653-B1 | Method Blank | Total/NA | water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |
| 99653-BS1 | Lab Control Sample | Total/NA | water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |
| 99653-BS2 | Lab Control Sample Dup | Total/NA | water | 625 PAH Physis LL (EAL) + TICs | O-38098_P |

Analysis Batch: 22DSH045W

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|----------------------------|-----------|----------------|--|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | 8015 Diesel LL (EAL) and Motor Oil | |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | 8015 Diesel LL (EAL) and Motor Oil | |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 8015 Diesel LL (EAL) and Motor Oil | |
| 22DSH045WB | Method Blank | Total/NA | WATER | 8015 Diesel LL (EAL) and Motor Oil | |

Eurofins Eaton Monrovia

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Subcontract (Continued)

Analysis Batch: 22DSH045W (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------|-----------|--------|------------------------------------|------------|
| 22DSH045WL | Lab Control Sample | Total/NA | WATER | 8015 Diesel LL (EAL) and Motor Oil | |

Analysis Batch: 22VG39H10

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|--------------------------------|-----------|----------------|-------------------------------|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | 8015 Gas (Purgeable) LL (EAL) | |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | 8015 Gas (Purgeable) LL (EAL) | |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | 8015 Gas (Purgeable) LL (EAL) | |
| 380-18000-4 | TB:AIEA GULCH WELLS P1 | Total/NA | Water | 8015 Gas (Purgeable) LL (EAL) | |
| 380-18000-5 | TB: AIEA WELLS PUMPS 1&2 (260) | Total/NA | Water | 8015 Gas (Purgeable) LL (EAL) | |
| 380-18000-6 | TB:AIEA GULCH WELLS P2 | Total/NA | Water | 8015 Gas (Purgeable) LL (EAL) | |
| 22VG39H10B | Method Blank | Total/NA | WATER | 8015 Gas (Purgeable) LL (EAL) | |
| 22VG39H10L | Lab Control Sample | Total/NA | WATER | 8015 Gas (Purgeable) LL (EAL) | |
| 22H294-01M | Matrix Spike | Total/NA | WATER | 8015 Gas (Purgeable) LL (EAL) | |
| 22H294-01S | Matrix Spike Duplicate | Total/NA | WATER | 8015 Gas (Purgeable) LL (EAL) | |

Prep Batch: O-38098_P

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|----------------------------|-----------|----------------|---------|------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Total/NA | Drinking Water | EPA_625 | |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Total/NA | Drinking Water | EPA_625 | |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Total/NA | Drinking Water | EPA_625 | |
| 99653-B1 | Method Blank | Total/NA | water | EPA_625 | |
| 99653-BS1 | Lab Control Sample | Total/NA | water | EPA_625 | |
| 99653-BS2 | Lab Control Sample Dup | Total/NA | water | EPA_625 | |

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-18000-1

Date Collected: 08/22/22 10:09

Matrix: Drinking Water

Date Received: 08/23/22 10:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|------------------------------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 15877 | N8NE | EA MON | 09/01/22 12:00 |
| Total/NA | Analysis | 525.2 | | 1 | 16128 | CS | EA MON | 09/02/22 22:24 |
| Total/NA | Prep | EPA_625 | | 1 | O-38098_P | | | 08/25/22 00:00 |
| Total/NA | Analysis | 625 PAH Physis LL (EAL) + TICs | | 1 | O-38098 | YC | | 08/31/22 01:02 |
| Total/NA | Analysis | 8015 Diesel LL (EAL) and Motor Oil | | 1 | 22DSH045W | SDees | | 08/31/22 18:21 |
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 16:11 |

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-2

Date Collected: 08/22/22 09:44

Matrix: Drinking Water

Date Received: 08/23/22 10:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|------------------------------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 15877 | N8NE | EA MON | 09/01/22 12:00 |
| Total/NA | Analysis | 525.2 | | 1 | 16128 | CS | EA MON | 09/02/22 22:45 |
| Total/NA | Prep | EPA_625 | | 1 | O-38098_P | | | 08/25/22 00:00 |
| Total/NA | Analysis | 625 PAH Physis LL (EAL) + TICs | | 1 | O-38098 | YC | | 08/31/22 02:46 |
| Total/NA | Analysis | 8015 Diesel LL (EAL) and Motor Oil | | 1 | 22DSH045W | SDees | | 08/31/22 18:40 |
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 18:39 |

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-18000-3

Date Collected: 08/22/22 10:36

Matrix: Drinking Water

Date Received: 08/23/22 10:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|------------------------------------|-----|-----------------|--------------|---------|--------|----------------------|
| Total/NA | Prep | 525.2 | | | 15877 | N8NE | EA MON | 09/01/22 12:00 |
| Total/NA | Analysis | 525.2 | | 1 | 16128 | CS | EA MON | 09/02/22 23:05 |
| Total/NA | Prep | EPA_625 | | 1 | O-38098_P | | | 08/25/22 00:00 |
| Total/NA | Analysis | 625 PAH Physis LL (EAL) + TICs | | 1 | O-38098 | YC | | 08/31/22 04:29 |
| Total/NA | Analysis | 8015 Diesel LL (EAL) and Motor Oil | | 1 | 22DSH045W | SDees | | 08/31/22 18:58 |
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 19:16 |

Client Sample ID: TB:AIEA GULCH WELLS P1

Lab Sample ID: 380-18000-4

Date Collected: 08/22/22 10:09

Matrix: Water

Date Received: 08/23/22 10:40

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|-------------------------------|-----|-----------------|--------------|---------|-----|----------------------|
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 14:08 |

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-18000-5

Date Collected: 08/22/22 09:44

Matrix: Water

Date Received: 08/23/22 10:40

| <u>Prep Type</u> | <u>Batch Type</u> | <u>Batch Method</u> | <u>Run</u> | <u>Dilution Factor</u> | <u>Batch Number</u> | <u>Analyst</u> | <u>Lab</u> | <u>Prepared or Analyzed</u> |
|------------------|-------------------|----------------------------------|------------|------------------------|---------------------|----------------|------------|-----------------------------|
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 14:56 |

Client Sample ID: TB:AIEA GULCH WELLS P2

Lab Sample ID: 380-18000-6

Date Collected: 08/22/22 10:36

Matrix: Water

Date Received: 08/23/22 10:40

| <u>Prep Type</u> | <u>Batch Type</u> | <u>Batch Method</u> | <u>Run</u> | <u>Dilution Factor</u> | <u>Batch Number</u> | <u>Analyst</u> | <u>Lab</u> | <u>Prepared or Analyzed</u> |
|------------------|-------------------|----------------------------------|------------|------------------------|---------------------|----------------|------------|-----------------------------|
| Total/NA | Analysis | 8015 Gas (Purgeable) LL (EAL) | | 1 | 22VG39H10 | SCerva | | 08/25/22 15:33 |

Laboratory References:

- = Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806
- EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100



Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

Laboratory: Eurofins Eaton Monrovia

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Hawaii | State | CA00006 | 01-31-23 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|----------------|----------------------------------|
| 525.2 | 525.2 | Drinking Water | 2,4'-DDD |
| 525.2 | 525.2 | Drinking Water | 2,4'-DDE |
| 525.2 | 525.2 | Drinking Water | 2,4'-DDT |
| 525.2 | 525.2 | Drinking Water | 2,4-Dinitrotoluene |
| 525.2 | 525.2 | Drinking Water | 2,6-Dinitrotoluene |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDD |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDE |
| 525.2 | 525.2 | Drinking Water | 4,4'-DDT |
| 525.2 | 525.2 | Drinking Water | Acenaphthene |
| 525.2 | 525.2 | Drinking Water | Acenaphthylene |
| 525.2 | 525.2 | Drinking Water | Acetochlor |
| 525.2 | 525.2 | Drinking Water | alpha-BHC |
| 525.2 | 525.2 | Drinking Water | alpha-Chlordane |
| 525.2 | 525.2 | Drinking Water | Anthracene |
| 525.2 | 525.2 | Drinking Water | Benz(a)anthracene |
| 525.2 | 525.2 | Drinking Water | Benzo[b]fluoranthene |
| 525.2 | 525.2 | Drinking Water | Benzo[g,h,i]perylene |
| 525.2 | 525.2 | Drinking Water | Benzo[k]fluoranthene |
| 525.2 | 525.2 | Drinking Water | beta-BHC |
| 525.2 | 525.2 | Drinking Water | Bromacil |
| 525.2 | 525.2 | Drinking Water | Butylbenzylphthalate |
| 525.2 | 525.2 | Drinking Water | Caffeine |
| 525.2 | 525.2 | Drinking Water | Chlorobenzilate |
| 525.2 | 525.2 | Drinking Water | Chloroneb |
| 525.2 | 525.2 | Drinking Water | Chlorothalonil (Draconil, Bravo) |
| 525.2 | 525.2 | Drinking Water | Chlorpyrifos |
| 525.2 | 525.2 | Drinking Water | Chrysene |
| 525.2 | 525.2 | Drinking Water | delta-BHC |
| 525.2 | 525.2 | Drinking Water | Diazinon (Qualitative) |
| 525.2 | 525.2 | Drinking Water | Dibenz(a,h)anthracene |
| 525.2 | 525.2 | Drinking Water | Diclorvos (DDVP) |
| 525.2 | 525.2 | Drinking Water | Diethylphthalate |
| 525.2 | 525.2 | Drinking Water | Dimethoate |
| 525.2 | 525.2 | Drinking Water | Dimethylphthalate |
| 525.2 | 525.2 | Drinking Water | Di-n-butyl phthalate |
| 525.2 | 525.2 | Drinking Water | Di-n-octyl phthalate |
| 525.2 | 525.2 | Drinking Water | Endosulfan I (Alpha) |
| 525.2 | 525.2 | Drinking Water | Endosulfan II (Beta) |
| 525.2 | 525.2 | Drinking Water | Endosulfan sulfate |
| 525.2 | 525.2 | Drinking Water | Endrin aldehyde |
| 525.2 | 525.2 | Drinking Water | EPTC |
| 525.2 | 525.2 | Drinking Water | Fluoranthene |
| 525.2 | 525.2 | Drinking Water | Fluorene |
| 525.2 | 525.2 | Drinking Water | gamma-Chlordane |
| 525.2 | 525.2 | Drinking Water | Indeno[1,2,3-cd]pyrene |

Accreditation/Certification Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-18000-1

Laboratory: Eurofins Eaton Monrovia (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
|-----------|---------|-----------------------|-----------------|

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|----------------|----------------------------------|
| 525.2 | 525.2 | Drinking Water | Isophorone |
| 525.2 | 525.2 | Drinking Water | Malathion |
| 525.2 | 525.2 | Drinking Water | Molinate |
| 525.2 | 525.2 | Drinking Water | Naphthalene |
| 525.2 | 525.2 | Drinking Water | Parathion |
| 525.2 | 525.2 | Drinking Water | Pendimethalin (Penoxaline) |
| 525.2 | 525.2 | Drinking Water | Phenanthrene |
| 525.2 | 525.2 | Drinking Water | Pyrene |
| 525.2 | 525.2 | Drinking Water | Terbacil |
| 525.2 | 525.2 | Drinking Water | Terbutylazine |
| 525.2 | 525.2 | Drinking Water | Thiobencarb |
| 525.2 | 525.2 | Drinking Water | Total Permethrin (mixed isomers) |
| 525.2 | 525.2 | Drinking Water | trans-Nonachlor |
| 525.2 | 525.2 | Drinking Water | Trifluralin |



Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

| Method | Method Description | Protocol | Laboratory |
|--------|--|----------|------------|
| 525.2 | Semivolatile Organic Compounds (GC/MS) | EPA | EA MON |
| 625 | EPA 625 Base/Neutral and Acid Organics i | EPA | |
| 8015 | 8015 - TPH DRO/ORO | EPA | |
| 8015B | SW846 8015B Gasoline Range Organics | SW846 | |
| 525.2 | Extraction of Semivolatile Compounds | EPA | EA MON |

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100



Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-18000-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|--------------------------------|----------------|----------------|----------------|
| 380-18000-1 | AIEA GULCH WELLS PUMP 1 | Drinking Water | 08/22/22 10:09 | 08/23/22 10:40 |
| 380-18000-2 | AIEA WELLS PUMPS 1&2 (260) | Drinking Water | 08/22/22 09:44 | 08/23/22 10:40 |
| 380-18000-3 | AIEA GULCH WELLS PUMP 2 | Drinking Water | 08/22/22 10:36 | 08/23/22 10:40 |
| 380-18000-4 | TB:AIEA GULCH WELLS P1 | Water | 08/22/22 10:09 | 08/23/22 10:40 |
| 380-18000-5 | TB: AIEA WELLS PUMPS 1&2 (260) | Water | 08/22/22 09:44 | 08/23/22 10:40 |
| 380-18000-6 | TB:AIEA GULCH WELLS P2 | Water | 08/22/22 10:36 | 08/23/22 10:40 |

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- 13
- 14
- 15
- 16
- 17



3051 Fujita Street
Torrance, CA 90505
Tel: (310)-618-8889

Date: 09-12-2022
EMAX Batch No.: 22H294

Attn: Jackie Contreras

Eurofins Eaton Analytical
750 Royal Oaks Dr., Suite 100
Monrovia, CA 91016-3629

Subject: Laboratory Report
Project: 380-18000

Enclosed is the Laboratory report for samples received on 08/24/22.
The data reported relate only to samples listed below :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|----------------|-----------|----------|--------|--|
| 380-18000-1 | H294-01 | 08/22/22 | WATER | TPH GASOLINE TPH DIESEL & MOTOR OIL |
| 380-18000-2 | H294-02 | 08/22/22 | WATER | TPH GASOLINE TPH DIESEL & MOTOR OIL |
| 380-18000-3 | H294-03 | 08/22/22 | WATER | TPH GASOLINE TPH DIESEL & MOTOR OIL |
| 380-18000-4 | H294-04 | 08/22/22 | WATER | TPH GASOLINE |
| 380-18000-5 | H294-05 | 08/22/22 | WATER | TPH GASOLINE |
| 380-18000-6 | H294-06 | 08/22/22 | WATER | TPH GASOLINE |
| 380-18000-1MS | H294-01M | 08/22/22 | WATER | TPH GASOLINE |
| 380-18000-1MSD | H294-01S | 08/22/22 | WATER | TPH GASOLINE |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

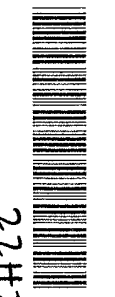
Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672



Client Information (Sub Contract Lab)

Client Contact: **EMAX Laboratories Inc**
 Shipping/Receiving: **EMAX Laboratories Inc**
 Address: **3051 Fujita Street, Torrance**
 State, Zip: **CA, 90505**
 Phone: **PO #:**
 Email: **WO #:**
 Project Name: **RED-HILL**
 Project #: **38001111**
 Site: **Honolulu BWS Sites**

Sampler: **Frank, Debbie L**
 Lab PM: **Frank, Debbie L**
 E-Mail: **Debbie.Frank@eurofins.com**
 State of Origin: **Hawaii**

Due Date Requested: **9/7/2022**
 TAT Requested (days): **Analysis Requested**

Accreditations Required (See note): **State - Hawaii**

COC No.: **380-19140-1**
 Page: **Page 1 of 1**
 Job #: **380-18000-1**

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - NaOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 M - Hexane
 N - None
 O - AsNaO2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Decahydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Y - Trizma
 Z - other (specify)

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | MATRIX (Water, Solid, O-waste/oil, BT-Tissue, Ash) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (8015 Gas (Purgeable) LL (EAL)/ 8015 Gas (Purgeable) LL (EAL)) | SUB (8015 Diesel LL (EAL) and Motor Oil)/ 8015 Diesel LL (EAL) and Motor Oil | Total Number of Containers | Special Instructions/Note: |
|--|-------------|-------------|------------------------------|--|-----------------------------------|----------------------------|--|--|----------------------------|----------------------------|
| 1 AIEA GULCH WELLS PUMP 1 (331-201-T P071) (380-18000-1) | 8/22/22 | 10:09 | Water | Water | X | X | X | X | 6 | See Attached Instructions |
| 2 AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-18000-2) | 8/22/22 | 09:44 | Water | Water | X | X | X | X | 6 | See Attached Instructions |
| 3 AIEA GULCH WELLS PUMP 2 (331-202-T P072) (380-18000-3) | 8/22/22 | 10:36 | Water | Water | X | X | X | X | 6 | See Attached Instructions |
| 4 TB:AIEA GULCH WELLS P1 (331-201-T P071) (380-18000-4) | 8/22/22 | 10:09 | Water | Water | X | X | X | X | 2 | See Attached Instructions |
| 5 TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-18000-5) | 8/22/22 | 09:44 | Water | Water | X | X | X | X | 2 | See Attached Instructions |
| 6 TB:AIEA GULCH WELLS P2 (331-202-T P072) (380-18000-6) | 8/22/22 | 10:36 | Water | Water | X | X | X | X | 2 | See Attached Instructions |

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) **Primary Deliverable Rank: 2**
 Special Instructions/QC Requirements: Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: **G. REMMER** Date: **08/24/2022** Company: **CEA** Received by: **Jack** Date/Time: **08/24/22 16:15** Company: **EMAX**

Relinquished by: **Alisea** Date/Time: **8-24-22 16:15** Company: **CEA** Received by: **Jack** Date/Time: **08/24/22 16:15** Company: **EMAX**

Custody Seals Intact: **REPROTD: 22H294** Custody Seal No.: **5.2** Cooler Temperature(s) °C and Other Remarks:



REFERENCE: EMAX-SM02 Rev. 12
SAMPLE RECEIPT FORM 1

| | | |
|---|---------------------------|--|
| Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery | Airbill / Tracking Number | ECN 22H294 Recipient Jocelyne Solis-Ramos Date 08/24/22 Time 16:15 |
|---|---------------------------|--|

COC INSPECTION

| | | | | | |
|---|---|--|--|--|--|
| <input checked="" type="checkbox"/> Client Name | <input checked="" type="checkbox"/> Client PM/FC | <input type="checkbox"/> Sampler Name | <input checked="" type="checkbox"/> Sampling Date/Time | <input checked="" type="checkbox"/> Sample ID | <input checked="" type="checkbox"/> Matrix |
| <input checked="" type="checkbox"/> Address | <input type="checkbox"/> Tel # / Fax # | <input type="checkbox"/> Courier Signature | <input checked="" type="checkbox"/> Analysis Required | <input type="checkbox"/> Preservative (if any) | <input checked="" type="checkbox"/> TAT |
| Safety Issues (if any) Note: | <input type="checkbox"/> High concentrations expected | <input type="checkbox"/> From Superfund Site | <input type="checkbox"/> Rad screening required | | |

PACKAGING INSPECTION

| | | | |
|--|--|--|--|
| Container | <input checked="" type="checkbox"/> Cooler | <input type="checkbox"/> Box | <input type="checkbox"/> Other |
| Condition | <input type="checkbox"/> Custody Seal | <input type="checkbox"/> Intact | <input type="checkbox"/> Damaged |
| Packaging | <input checked="" type="checkbox"/> Bubble Pack | <input type="checkbox"/> Styrofoam | <input type="checkbox"/> Popcorn |
| Temperatures (Cool, ≤6 °C but not frozen) | <input checked="" type="checkbox"/> Cooler 1 5.2 °C | <input type="checkbox"/> Cooler 2 _____ °C | <input type="checkbox"/> Cooler 3 _____ °C |
| | <input type="checkbox"/> Cooler 6 _____ °C | <input type="checkbox"/> Cooler 7 _____ °C | <input type="checkbox"/> Cooler 8 _____ °C |
| Thermometer: | A - S/N _____ | B - S/N 210760297 | C - S/N _____ |
| | | | D - S/N 210760272 |

Comments: Temperature is out of range. PM was informed IMMEDIATELY.
 Note:

DISCREPANCIES

| LabSampleID | LabSampleContainerID | Code | ClientSample Label ID / Information | Corrective Action |
|-------------------|-----------------------|------------|---|-------------------|
| 4-b | 19, 20, 21, 24 | D7 | two dates on label - 8/22/22 and 8/16/22 | R1 |
| b | 23 | D14 | | R4 |
| <i>EA 8/29/22</i> | | | | |

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS: *Sample 4(20) has a bubble, but not >6mm*
 SAMPLE MATRIX IS DRINKING WATER? YES NO

LEGEND:

- Code Description-Sample Management
- D1 Analysis is not indicated in _____
- D2 Analysis mismatch COC vs label
- D3 Sample ID mismatch COC vs label
- D4 Sample ID is not indicated in _____
- D5 Container -[improper] [leaking] [broken]
- D6 Date/Time is not indicated in _____
- D7 Date/Time mismatch COC vs label**
- D8 Sample listed in COC is not received
- D9 Sample received is not listed in COC
- D10 No initial/date on corrections in COC/label
- D11 Container count mismatch COC vs received
- D12 Container size mismatch COC vs received

- Code Description-Sample Management
- D13 Out of Holding Time
- D14 Bubble is >6mm**
- D15 No trip blank in cooler
- D16 Preservation not indicated in _____
- D17 Preservation mismatch COC vs label
- D18 Insufficient chemical preservative
- D19 Insufficient Sample
- D20 No filtration info for dissolved analysis
- D21 No sample for moisture determination
- D22 _____
- D23 _____
- D24 _____

- Continue to next page.
- Code Description-Sample Management
- R1 Proceed as indicated in COC Label
- R2 Refer to attached instruction
- R3 Cancel the analysis
- R4 Use vial with smallest bubble first
- R5 Log-in with latest sampling date and time+1 min
- R6 Adjust pH as necessary
- R7 Filter and preserved as necessary
- R8 _____
- R9 _____
- R10 _____
- R11 _____
- R12 _____

REVIEWS:
 Sample Labeling *Jocelyne Solis-Ramos*
 Date *08/24/22*

SRF *EA*
 Date *8/24/22*

PM *EA for RB*
 Date *8/29/22*

REPORT ID: 22H294

REPORTING CONVENTIONS

DATA QUALIFIERS:

| Lab Qualifier | AFCEE Qualifier | Description |
|---------------|-----------------|--|
| J | F | Indicates that the analyte is positively identified and the result is less than RL but greater than MDL. |
| N | | Indicates presumptive evidence of a compound. |
| B | B | Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level. |
| E | J | Indicates that the result is above the maximum calibration range or estimated value. |
| * | * | Out of QC limit. |

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

| | |
|------|-----------------------------------|
| CRDL | Contract Required Detection Limit |
| RL | Reporting Limit |
| MRL | Method Reporting Limit |
| PQL | Practical Quantitation Limit |
| MDL | Method Detection Limit |
| DO | Diluted out |

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-18000

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 22H294



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-18000

SDG : 22H294

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of six(6) water samples were received on 08/24/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VG39H10B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VG39H10L/VG39H10C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in H294-01M/H294-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client : EUROFINS EATON ANALYTICAL
Project : 380-18000
=====
SDG NO. : 22H294
Instrument ID : D5
=====

```

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis DateTime | Extraction DateTime | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|------------------|----------------------|-----------------|---------|-------------------|---------------------|----------------|---------------------|-------------|--------------------------|
| | | | | | | | | | WATER |
| MBLK1W | DSH045WB | 1 | NA | 08/31/2214:16 | 08/29/2211:30 | LH31009A | LH31003A | 22DSH045W | Method Blank |
| LCS1W | DSH045WL | 1 | NA | 08/31/2214:35 | 08/29/2211:30 | LH31010A | LH31003A | 22DSH045W | Lab Control Sample (LCS) |
| 380-18000-1 | H294-01 | 1 | NA | 08/31/2218:21 | 08/29/2211:30 | LH31021A | LH31003A | 22DSH045W | Field Sample |
| 380-18000-2 | H294-02 | 1 | NA | 08/31/2218:40 | 08/29/2211:30 | LH31022A | LH31003A | 22DSH045W | Field Sample |
| 380-18000-3 | H294-03 | 1 | NA | 08/31/2218:58 | 08/29/2211:30 | LH31023A | LH31003A | 22DSH045W | Field Sample |

FN - Filename
% Moist - Percent Moisture



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| 17 |

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:09
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/29/22 11:30
Sample ID   : 380-18000-1                 Date Analyzed: 08/31/22 18:21
Lab Samp ID: 22H294-01                   Dilution Factor: 1
Lab File ID: LH31021A                     Matrix: WATER
Ext Btch ID: 22DSH045W                   % Moisture: NA
Calib. Ref.: LH31003A                     Instrument ID: D5
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) | |
|----------------------|-------------------|--------------|---------------|----------|
| Diesel | ND | 0.027 | 0.013 | |
| Motor Oil | ND | 0.053 | 0.027 | |
| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
| Bromobenzene | 0.476 | 0.530 | 90 | 60-130 |
| Hexacosane | 0.137 | 0.132 | 104 | 60-130 |

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 940ml Final Volume : 5ml
Prepared by : P0reto Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 09:44
Project    : 380-18000                   Date Received: 08/24/22
Batch No.  : 22H294                       Date Extracted: 08/29/22 11:30
Sample ID  : 380-18000-2                 Date Analyzed: 08/31/22 18:40
Lab Samp ID: 22H294-02                   Dilution Factor: 1
Lab File ID: LH31022A                     Matrix: WATER
Ext Btch ID: 22DSH045W                   % Moisture: NA
Calib. Ref.: LH31003A                     Instrument ID: D5
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) | |
|----------------------|-------------------|--------------|---------------|----------|
| Diesel | ND | 0.030 | 0.015 | |
| Motor Oil | ND | 0.059 | 0.030 | |
| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
| Bromobenzene | 0.478 | 0.590 | 81 | 60-130 |
| Hexacosane | 0.143 | 0.148 | 97 | 60-130 |

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 850ml Final Volume : 5ml
Prepared by : POrto Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:36
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/29/22 11:30
Sample ID   : 380-18000-3                 Date Analyzed: 08/31/22 18:58
Lab Samp ID: 22H294-03                     Dilution Factor: 1
Lab File ID: LH31023A                       Matrix: WATER
Ext Btch ID: 22DSH045W                       % Moisture: NA
Calib. Ref.: LH31003A                       Instrument ID: D5
=====
  
```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) | | |
|----------------------|-------------------|--------------|---------------|----------|--|
| Diesel | ND | 0.024 | 0.012 | | |
| Motor Oil | ND | 0.047 | 0.024 | | |
| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT | |
| Bromobenzene | 0.385 | 0.470 | 82 | 60-130 | |
| Hexacosane | 0.110 | 0.118 | 94 | 60-130 | |

Notes:

Parameter H-C Range
 Diesel C10-C24
 Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1060ml Final Volume : 5ml
 Prepared by : P0reto Analyzed by : SDeeso

| |
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| 16 |
| 17 |

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/29/22 11:30
Project     : 380-18000                  Date Received: 08/29/22
Batch No.   : 22H294                     Date Extracted: 08/29/22 11:30
Sample ID   : MBLK1W                     Date Analyzed: 08/31/22 14:16
Lab Samp ID : DSH045WB                   Dilution Factor: 1
Lab File ID : LH31009A                   Matrix: WATER
Ext Btch ID : 22DSH045W                  % Moisture: NA
Calib. Ref.: LH31003A                    Instrument ID: D5
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Diesel | ND | 0.025 | 0.012 |
| Motor Oil | ND | 0.050 | 0.025 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromobenzene | 0.408 | 0.500 | 82 | 60-130 |
| Hexacosane | 0.116 | 0.125 | 93 | 60-130 |

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
Prepared by : P0reto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-18000
BATCH NO. : 22H294
METHOD : 3520C/8015B

=====

| | | |
|------------------|------------------|----------------|
| MATRIX | : WATER | % MOISTURE:NA |
| DILUTION FACTOR: | 1 | 1 |
| SAMPLE ID | : MBLK1W | LCS1W |
| LAB SAMPLE ID | : DSH045WB | DSH045WL |
| LAB FILE ID | : LH31009A | LH31010A |
| DATE PREPARED | : 08/29/22 11:30 | 08/29/22 11:30 |
| DATE ANALYZED | : 08/31/22 14:16 | 08/31/22 14:35 |
| PREP BATCH | : 22DSH045W | 22DSH045W |
| CALIBRATION REF: | LH31003A | LH31003A |

ACCESSION:

| PARAMETERS | MBResult (mg/L) | SpikeAmt (mg/L) | LCSResult (mg/L) | LCSRec (%) | QCLimit (%) |
|------------|--------------------|--------------------|---------------------|---------------|----------------|
| Diesel | ND | 2.50 | 2.03 | 81 | 50-130 |

| SURROGATE PARAMETERS | SpikeAmt (mg/L) | LCSResult (mg/L) | LCSRec (%) | QCLimit (%) |
|----------------------|--------------------|---------------------|---------------|----------------|
| Bromobenzene | 0.500 | 0.313 | 63 | 60-130 |
| Hexacosane | 0.125 | 0.129 | 103 | 60-130 |

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-17545
BATCH NO. : 22H268
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                     % MOISTURE:NA
DILUTION FACTOR: 1                                     1
SAMPLE ID   : 380-17545-1                             380-17545-1MSD
LAB SAMPLE ID : 22H268-01                             22H268-01S
LAB FILE ID  : LH31013A                               LH31015A
DATE PREPARED : 08/29/22 11:30                       08/29/22 11:30
DATE ANALYZED : 08/31/22 15:31                       08/31/22 16:08
PREP BATCH   : 22DSH045W                             22DSH045W
CALIBRATION REF: LH31003A                             LH31003A
  
```

ACCESSION:

| PARAMETERS | PSResult (mg/L) | SpikeAmt (mg/L) | MSResult (mg/L) | MSRec (%) | SpikeAmt (mg/L) | MSDResult (mg/L) | MSDRec (%) | RPD (%) | QCLimit (%) | MaxRPD (%) |
|------------|--------------------|--------------------|--------------------|--------------|--------------------|---------------------|---------------|------------|----------------|---------------|
| Diesel | ND | 2.58 | 2.23 | 87 | 2.60 | 2.45 | 94 | 9 | 50-130 | 30 |

| SURROGATE PARAMETERS | SpikeAmt (mg/L) | MSResult (mg/L) | MSRec (%) | SpikeAmt (mg/L) | MSDResult (mg/L) | MSDRec (%) | QCLimit (%) |
|----------------------|--------------------|--------------------|--------------|--------------------|---------------------|---------------|----------------|
| Bromobenzene | 0.515 | 0.357 | 69 | 0.520 | 0.408 | 78 | 60-130 |
| Hexacosane | 0.129 | 0.135 | 105 | 0.130 | 0.140 | 108 | 60-130 |

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-18000

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22H294



CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-18000

SDG : 22H294

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of three(3) water samples were received on 08/24/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSH045WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSH045WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22H268-01M/22H268-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
 Project : 380-18000
 SDG NO. : 22H294
 Instrument ID : GCT039

| Client Sample ID | Laboratory Sample ID | Dilution Factor | % Moist | Analysis Date/Time | Extraction Date/Time | Sample Data FN | Calibration Data FN | Prep. Batch | Notes |
|------------------|----------------------|-----------------|---------|--------------------|----------------------|----------------|---------------------|-------------|--------------------------|
| | | | | | | | | | WATER |
| MBLK1W | VG39H10B | 1 | NA | 08/25/2212:17 | 08/25/2212:17 | EH25005A | EH25003A | 22VG39H10 | Method Blank |
| LCS1W | VG39H10L | 1 | NA | 08/25/2212:54 | 08/25/2212:54 | EH25006A | EH25003A | 22VG39H10 | Lab Control Sample (LCS) |
| LCD1W | VG39H10C | 1 | NA | 08/25/2213:31 | 08/25/2213:31 | EH25007A | EH25003A | 22VG39H10 | LCS Duplicate |
| 380-18000-4 | H294-04 | 1 | NA | 08/25/2214:08 | 08/25/2214:08 | EH25008A | EH25003A | 22VG39H10 | Field Sample |
| 380-18000-5 | H294-05 | 1 | NA | 08/25/2214:56 | 08/25/2214:56 | EH25009A | EH25003A | 22VG39H10 | Field Sample |
| 380-18000-6 | H294-06 | 1 | NA | 08/25/2215:33 | 08/25/2215:33 | EH25010A | EH25003A | 22VG39H10 | Field Sample |
| 380-18000-1 | H294-01 | 1 | NA | 08/25/2216:11 | 08/25/2216:11 | EH25011A | EH25003A | 22VG39H10 | Field Sample |
| 380-18000-1MS | H294-01M | 1 | NA | 08/25/2216:48 | 08/25/2216:48 | EH25012A | EH25003A | 22VG39H10 | Matrix Spike Sample (MS) |
| 380-18000-1MSD | H294-01S | 1 | NA | 08/25/2217:25 | 08/25/2217:25 | EH25013A | EH25003A | 22VG39H10 | MS Duplicate (MSD) |
| 380-18000-2 | H294-02 | 1 | NA | 08/25/2218:39 | 08/25/2218:39 | EH25015A | EH25014A | 22VG39H10 | Field Sample |
| 380-18000-3 | H294-03 | 1 | NA | 08/25/2219:16 | 08/25/2219:16 | EH25016A | EH25014A | 22VG39H10 | Field Sample |

FN - Filename
 % Moist - Percent Moisture



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SAMPLE RESULTS

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:09
Project    : 380-18000                   Date Received: 08/24/22
Batch No.  : 22H294                       Date Extracted: 08/25/22 16:11
Sample ID  : 380-18000-1                 Date Analyzed: 08/25/22 16:11
Lab Samp ID: H294-01                     Dilution Factor: 1
Lab File ID: EH25011A                     Matrix: WATER
Ext Btch ID: 22VG39H10                   % Moisture: NA
Calib. Ref.: EH25003A                     Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0346 | 0.0400 | 86 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 09:44
Project    : 380-18000                   Date Received: 08/24/22
Batch No.  : 22H294                       Date Extracted: 08/25/22 18:39
Sample ID  : 380-18000-2                  Date Analyzed: 08/25/22 18:39
Lab Samp ID: H294-02                       Dilution Factor: 1
Lab File ID: EH25015A                       Matrix: WATER
Ext Btch ID: 22VG39H10                     % Moisture: NA
Calib. Ref.: EH25014A                     Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0342 | 0.0400 | 86 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:36
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/25/22 19:16
Sample ID   : 380-18000-3                 Date Analyzed: 08/25/22 19:16
Lab Samp ID: H294-03                       Dilution Factor: 1
Lab File ID: EH25016A                       Matrix: WATER
Ext Btch ID: 22VG39H10                     % Moisture: NA
Calib. Ref.: EH25014A                     Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0351 | 0.0400 | 88 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:09
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/25/22 14:08
Sample ID   : 380-18000-4                 Date Analyzed: 08/25/22 14:08
Lab Samp ID: H294-04                       Dilution Factor: 1
Lab File ID: EH25008A                       Matrix: WATER
Ext Btch ID: 22VG39H10                     % Moisture: NA
Calib. Ref.: EH25003A                       Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0334 | 0.0400 | 84 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 09:44
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/25/22 14:56
Sample ID   : 380-18000-5                 Date Analyzed: 08/25/22 14:56
Lab Samp ID: H294-05                       Dilution Factor: 1
Lab File ID: EH25009A                       Matrix: WATER
Ext Btch ID: 22VG39H10                     % Moisture: NA
Calib. Ref.: EH25003A                       Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0331 | 0.0400 | 83 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/22/22 10:36
Project     : 380-18000                   Date Received: 08/24/22
Batch No.   : 22H294                       Date Extracted: 08/25/22 15:33
Sample ID   : 380-18000-6                 Date Analyzed: 08/25/22 15:33
Lab Samp ID: H294-06                       Dilution Factor: 1
Lab File ID: EH25010A                       Matrix: WATER
Ext Btch ID: 22VG39H10                     % Moisture: NA
Calib. Ref.: EH25003A                       Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) | |
|----------------------|-------------------|--------------|---------------|----------|
| GASOLINE | ND | 0.020 | 0.010 | |
| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
| Bromofluorobenzene | 0.0336 | 0.0400 | 84 | 60-140 |

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

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QC SUMMARIES

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 08/25/22 12:17
Project    : 380-18000                   Date Received: 08/25/22
Batch No.  : 22H294                       Date Extracted: 08/25/22 12:17
Sample ID  : MBLK1W                       Date Analyzed: 08/25/22 12:17
Lab Samp ID: VG39H10B                     Dilution Factor: 1
Lab File ID: EH25005A                     Matrix: WATER
Ext Btch ID: 22VG39H10                   % Moisture: NA
Calib. Ref.: EH25003A                   Instrument ID: 39
=====

```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| GASOLINE | ND | 0.020 | 0.010 |

| SURROGATE PARAMETERS | RESULT | SPK_AMT | %RECOVERY | QC LIMIT |
|----------------------|--------|---------|-----------|----------|
| Bromofluorobenzene | 0.0321 | 0.0400 | 80 | 60-140 |

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-18000
BATCH NO. : 22H294
METHOD : 50308/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W       LCD1W
LAB SAMPLE ID : VG39H10B                         VG39H10L   VG39H10C
LAB FILE ID  : EH25005A                         EH25006A   EH25007A
DATE PREPARED : 08/25/22 12:17                  08/25/22 12:54  08/25/22 13:31
DATE ANALYZED : 08/25/22 12:17                  08/25/22 12:54  08/25/22 13:31
PREP BATCH   : 22VG39H10                        22VG39H10   22VG39H10
CALIBRATION REF: EH25003A                       EH25003A   EH25003A
  
```

ACCESSION:

| PARAMETERS | MBResult (mg/L) | SpikeAmt (mg/L) | LCSResult (mg/L) | LCSRec (%) | SpikeAmt (mg/L) | LCDResult (mg/L) | LCDRec (%) | RPD (%) | QCLimit (%) | MaxRPD (%) |
|------------|--------------------|--------------------|---------------------|---------------|--------------------|---------------------|---------------|------------|----------------|---------------|
| Gasoline | ND | 0.500 | 0.454 | 91 | 0.500 | 0.450 | 90 | 1 | 60-130 | 30 |

| SURROGATE PARAMETER | SpikeAmt (mg/L) | LCSResult (mg/L) | LCSRec (%) | SpikeAmt (mg/L) | LCDResult (mg/L) | LCDRec (%) | QCLimit (%) |
|---------------------|--------------------|---------------------|---------------|--------------------|---------------------|---------------|----------------|
| Bromofluorobenzene | 0.0400 | 0.0431 | 108 | 0.0400 | 0.0417 | 104 | 70-130 |

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-18000
BATCH NO. : 22H294
METHOD : 5030B/8015B

| | | |
|--------------------------------|----------------|----------------|
| MATRIX : WATER | | % MOISTURE:NA |
| DILUTION FACTOR: 1 | 1 | 1 |
| SAMPLE ID : 380-18000-1 | 380-18000-1MS | 380-18000-1MSD |
| LAB SAMPLE ID : H294-01 | H294-01M | H294-01S |
| LAB FILE ID : EH25011A | EH25012A | EH25013A |
| DATE PREPARED : 08/25/22 16:11 | 08/25/22 16:48 | 08/25/22 17:25 |
| DATE ANALYZED : 08/25/22 16:11 | 08/25/22 16:48 | 08/25/22 17:25 |
| PREP BATCH : 22VG39H10 | 22VG39H10 | 22VG39H10 |
| CALIBRATION REF: EH25003A | EH25003A | EH25003A |

ACCESSION:

| PARAMETERS | PSResult (mg/L) | SpikeAmt (mg/L) | MSResult (mg/L) | MSRec (%) | SpikeAmt (mg/L) | MSDResult (mg/L) | MSDRec (%) | RPD (%) | QCLimit (%) | MaxRPD (%) |
|------------|--------------------|--------------------|--------------------|--------------|--------------------|---------------------|---------------|------------|----------------|---------------|
| Gasoline | ND | 0.500 | 0.461 | 92 | 0.500 | 0.453 | 91 | 2 | 50-130 | 30 |

| SURROGATE PARAMETER | SpikeAmt (mg/L) | MSResult (mg/L) | MSRec (%) | SpikeAmt (mg/L) | MSDResult (mg/L) | MSDRec (%) | QCLimit (%) |
|---------------------|--------------------|--------------------|--------------|--------------------|---------------------|---------------|----------------|
| Bromofluorobenzene | 0.0400 | 0.0441 | 110 | 0.0400 | 0.0436 | 109 | 60-140 |

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

September 06, 2022

Debbie Frank
 Eurofins Eaton Analytical
 750 Royal Oaks Drive
 Suite 100
 Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-18000-1
 Physis Project ID: 1407003-279

Dear Debbie,

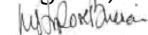
Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 8/24/2022. A total of 3 samples were received for analysis in accordance with the attached chain of custody (COC). Per the COC, the samples were analyzed for:

| Organics |
|--|
| Polynuclear Aromatic Hydrocarbons by EPA 625.1 |
| Disalicylidenepropanediamine by EPA 625.1 |
| Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1 |

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,



Misty Mercier
 714 602-5320
 Extension 202
 mistymercier@physislabs.com



PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-279

RED-HILL Project # 38001111 Job # 380-18000-1

Total Samples: 3

| PHYSIS ID | Sample ID | Description | Date | Time | Matrix | Sample Type |
|-----------|--|---------------|-----------|-------|-------------|---------------|
| 99654 | AIEA GULCH WELLS PUMP 331-201-TP071 | (380-18000-1) | 8/22/2022 | 10:09 | Samplewater | Not Specified |
| 99655 | AIEA WELLS PUMPS 1&2 (26031-203-TP400) | (380-18000-2) | 8/22/2022 | 9:44 | Samplewater | Not Specified |
| 99656 | AIEA GULCH WELLS PUMP 331-202-TP072 | (380-18000-3) | 8/22/2022 | 10:36 | Samplewater | Not Specified |



ABBREVIATIONS and ACRONYMS

| | |
|------|--|
| QM | Quality Manual |
| QA | Quality Assurance |
| QC | Quality Control |
| MDL | method detection limit |
| RL | reporting limit |
| R1 | project sample |
| R2 | project sample replicate |
| MS1 | matrix spike |
| MS2 | matrix spike replicate |
| B1 | procedural blank |
| B2 | procedural blank replicate |
| BS1 | blank spike |
| BS2 | blank spike replicate |
| LCS1 | laboratory control spike |
| LCS2 | laboratory control spike replicate |
| LCM1 | laboratory control material |
| LCM2 | laboratory control material replicate |
| CRM1 | certified reference material |
| CRM2 | certified reference material replicate |
| RPD | relative percent difference |
| LMW | low molecular weight |
| HMW | high molecular weight |

QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS₁/MS₂, BS₁/BS₂, LCS₁/LCS₂, LCM₁/LCM₂, CRM₁/CRM₂, surrogate spikes and/or replicate project sample analysis (R₁/R₂) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.

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PHYSIS QUALIFIER CODES

| CODE | DEFINITION |
|------|---|
| # | see Case Narrative |
| ND | analyte not detected at or above the MDL |
| B | analyte was detected in the procedural blank greater than 10 times the MDL |
| E | analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated |
| H | sample received and/or analyzed past the recommended holding time |
| J | analyte was detected at a concentration below the RL and above the MDL, reported value is estimated |
| N | insufficient sample, analysis could not be performed |
| M | analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification |
| SH | analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply |
| SL | analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply |
| NH | project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply |
| Q | analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification |
| R | Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples |

CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported are ND at the RL.

ANALYTICAL REPORT

TERRA AURA ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

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Base/Neutral Extractable Compounds

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed |
|--|-----------|-------|--------|----|------|-----|----------|---------|----------|----------------|---------------|
| Sample ID: 99654-R1 AIEA GULCH WELLS PUMP 1 331-20 Matrix: Samplewater | | | | | | | | | | | |
| Disalicylideneopropanediamine | EPA 625.1 | µg/L | ND | 1 | 0.05 | 0.1 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Sample ID: 99655-R1 AIEA WELLS PUMPS 1&2 (260) 331- Matrix: Samplewater | | | | | | | | | | | |
| Disalicylideneopropanediamine | EPA 625.1 | µg/L | ND | 1 | 0.05 | 0.1 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Sample ID: 99656-R1 AIEA GULCH WELLS PUMP 2 331-20 Matrix: Samplewater | | | | | | | | | | | |
| Disalicylideneopropanediamine | EPA 625.1 | µg/L | ND | 1 | 0.05 | 0.1 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |



Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed |
|----------------------------|-----------|------------|--------|----|-------|-------|--|---------|---------------------------------|----------------|----------------------------|
| Sample ID: 99654-R1 | | | | | | | AIEA GULCH WELLS PUMP 1331-20 Matrix: Samplewater | | Sampled: 22-Aug-22 10:09 | | Received: 24-Aug-22 |
| (d10-Acenaphthene) | EPA 625.1 | % Recovery | 47 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| (d10-Phenanthrene) | EPA 625.1 | % Recovery | 62 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| (d12-Chrysene) | EPA 625.1 | % Recovery | 62 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| (d12-Perylene) | EPA 625.1 | % Recovery | 57 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| (d8-Naphthalene) | EPA 625.1 | % Recovery | 51 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| 1-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| 1-Methylphenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| 2,3,5-Trimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| 2,6-Dimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| 2-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Acenaphthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Acenaphthylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benz[a]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benzo[a]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benzo[b]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benzo[e]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benzo[g,h,i]perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Benzo[k]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Biphenyl | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Chrysene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Dibenz[a,h]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Dibenzo[a,l]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Dibenzothiophene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |

Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed |
|------------------------|-----------|-------|--------|----|-------|-------|----------|---------|----------|----------------|---------------|
| Fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Fluorene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Indeno[1,2,3-cd]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Naphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Phenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |



Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed | |
|----------------------------|--|------------|--------|----|-------|-------|--------------------------------|---------|----------------------------|----------------|---------------|--|
| Sample ID: 99655-R1 | AIEA WELLS PUMPS 1&2 (260) 331- Matrix: Samplewater | | | | | | Sampled: 22-Aug-22 9:44 | | Received: 24-Aug-22 | | | |
| (d10-Acenaphthene) | EPA 625.1 | % Recovery | 64 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d10-Phenanthrene) | EPA 625.1 | % Recovery | 62 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d12-Chrysene) | EPA 625.1 | % Recovery | 73 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d12-Perylene) | EPA 625.1 | % Recovery | 62 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d8-Naphthalene) | EPA 625.1 | % Recovery | 49 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 1-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 1-Methylphenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2,3,5-Trimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2,6-Dimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Acenaphthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Acenaphthylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benz[a]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[a]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[b]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[e]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[g,h,i]perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[k]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Biphenyl | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Chrysene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenz[a,h]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenzo[a,l]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenzothiophene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |

Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed |
|------------------------|-----------|-------|--------|----|-------|-------|----------|---------|----------|----------------|---------------|
| Fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Fluorene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Indeno[1,2,3-cd]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Naphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Phenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |



Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed | |
|----------------------------|---|------------|--------|----|-------|-------|---------------------------------|----------------------------|----------|----------------|---------------|--|
| Sample ID: 99656-R1 | AIEA GULCH WELLS PUMP 2 331-20 Matrix: Samplewater | | | | | | Sampled: 22-Aug-22 10:36 | Received: 24-Aug-22 | | | | |
| (d10-Acenaphthene) | EPA 625.1 | % Recovery | 47 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d10-Phenanthrene) | EPA 625.1 | % Recovery | 56 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d12-Chrysene) | EPA 625.1 | % Recovery | 57 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d12-Perylene) | EPA 625.1 | % Recovery | 51 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| (d8-Naphthalene) | EPA 625.1 | % Recovery | 46 | 1 | | | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 1-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 1-Methylphenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2,3,5-Trimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2,6-Dimethylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| 2-Methylnaphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Acenaphthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Acenaphthylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benz[a]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[a]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[b]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[e]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[g,h,i]perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Benzo[k]fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Biphenyl | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Chrysene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenz[a,h]anthracene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenzo[a,l]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |
| Dibenzothiophene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 | |

Polynuclear Aromatic Hydrocarbons

| ANALYTE | Method | Units | RESULT | DF | MDL | RL | Fraction | QA CODE | Batch ID | Date Processed | Date Analyzed |
|------------------------|-----------|-------|--------|----|-------|-------|----------|---------|----------|----------------|---------------|
| Fluoranthene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Fluorene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Indeno[1,2,3-cd]pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Naphthalene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Perylene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Phenanthrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |
| Pyrene | EPA 625.1 | µg/L | ND | 1 | 0.001 | 0.005 | Total | | O-38098 | 25-Aug-22 | 31-Aug-22 |

QUALITY CONTROL REPORT

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Base/Neutral Extractable Compounds

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE SOURCE | | ACCURACY | | PRECISION | | QA CODEc |
|-----------------------------|----------|------------------------------|----|------|----------------------------|-------|---------------------|--------|---------------------|-----------|-----------|--------|----------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS | |
| Sample ID: 99653-B1 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | Sampled: | | Received: | | | | |
| | | Method: EPA 625.1 | | | Batch ID: O-38098 | | Prepared: 22-Aug-22 | | Analyzed: 30-Aug-22 | | | | |
| Disalicylidenepropanediamin | Total | ND | 1 | 0.05 | 0.1 | µg/L | | | | | | | |
| Sample ID: 99653-BS1 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | Sampled: | | Received: | | | | |
| | | Method: EPA 625.1 | | | Batch ID: O-38098 | | Prepared: 22-Aug-22 | | Analyzed: 30-Aug-22 | | | | |
| Disalicylidenepropanediamin | Total | 39.6 | 1 | 0.05 | 0.1 | µg/L | 50 | 0 | 79 | 50 - 150% | PASS | | |
| Sample ID: 99653-BS2 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | Sampled: | | Received: | | | | |
| | | Method: EPA 625.1 | | | Batch ID: O-38098 | | Prepared: 22-Aug-22 | | Analyzed: 30-Aug-22 | | | | |
| Disalicylidenepropanediamin | Total | 43.5 | 1 | 0.05 | 0.1 | µg/L | 50 | 0 | 87 | 50 - 150% | PASS | 10 | 30 PASS |

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | PRECISION | QA CODE |
|----------------------------|----------|------------------------------|----|-------|----------------------------|------------|---------------------|--------|---------------------|-----------|---------|
| | | | | | | | LEVEL | RESULT | % LIMITS | % LIMITS | |
| Sample ID: 99653-B1 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | Sampled: | | Received: | | |
| | | Method: EPA 625.1 | | | Batch ID: O-38098 | | Prepared: 22-Aug-22 | | Analyzed: 30-Aug-22 | | |
| (d10-Acenaphthene) | Total | 94 | 1 | | | % Recovery | 100 | 94 | 65 - 113% | PASS | |
| (d10-Phenanthrene) | Total | 93 | 1 | | | % Recovery | 100 | 93 | 80 - 111% | PASS | |
| (d12-Chrysene) | Total | 99 | 1 | | | % Recovery | 100 | 99 | 60 - 139% | PASS | |
| (d12-Perylene) | Total | 91 | 1 | | | % Recovery | 100 | 91 | 36 - 161% | PASS | |
| (d8-Naphthalene) | Total | 87 | 1 | | | % Recovery | 100 | 87 | 44 - 119% | PASS | |
| 1-Methylnaphthalene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| 1-Methylphenanthrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| 2,3,5-Trimethylnaphthalene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| 2,6-Dimethylnaphthalene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| 2-Methylnaphthalene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Acenaphthene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Acenaphthylene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Anthracene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benz[a]anthracene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benzo[a]pyrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benzo[b]fluoranthene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benzo[e]pyrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benzo[g,h,i]perylene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Benzo[k]fluoranthene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Biphenyl | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Chrysene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Dibenz[a,h]anthracene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |
| Dibenzo[a,l]pyrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | |

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | | PRECISION | | QA CODEc |
|------------------------|----------|--------|----|-------|-------|-------|-------|--------|----------|--------|-----------|--------|----------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS | |
| Dibenzothiophene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Fluoranthene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Fluorene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Indeno[1,2,3-cd]pyrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Naphthalene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Perylene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Phenanthrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |
| Pyrene | Total | ND | 1 | 0.001 | 0.005 | µg/L | | | | | | | |



Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | | PRECISION | QA CODEc |
|-----------------------------|----------|------------------------------|----|-------|----------------------------|------------|---------------------|-----------------|----------|------------------|-----------|----------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS |
| Sample ID: 99653-BS1 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | | Sampled: | | Received: | | |
| Method: EPA 625.1 | | Batch ID: O-38098 | | | Prepared: 22-Aug-22 | | Analyzed: 30-Aug-22 | | | | | |
| (d10-Acenaphthene) | Total | 107 | 1 | | | % Recovery | 100 | 0 | 107 | 65 - 113% | PASS | |
| (d10-Phenanthrene) | Total | 94 | 1 | | | % Recovery | 100 | 0 | 94 | 80 - 111% | PASS | |
| (d12-Chrysene) | Total | 90 | 1 | | | % Recovery | 100 | 0 | 90 | 60 - 139% | PASS | |
| (d12-Perylene) | Total | 101 | 1 | | | % Recovery | 100 | 0 | 101 | 36 - 161% | PASS | |
| (d8-Naphthalene) | Total | 108 | 1 | | | % Recovery | 100 | 0 | 108 | 44 - 119% | PASS | |
| 1-Methylnaphthalene | Total | 0.569 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 114 | 49 - 117% | PASS | |
| 1-Methylphenanthrene | Total | 0.488 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 98 | 66 - 127% | PASS | |
| 2,3,5-Trimethylnaphthalene | Total | 0.502 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 100 | 57 - 120% | PASS | |
| 2,6-Dimethylnaphthalene | Total | 0.584 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 117 | 54 - 117% | PASS | |
| 2-Methylnaphthalene | Total | 0.545 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 109 | 47 - 130% | PASS | |
| Acenaphthene | Total | 0.597 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 119 | 53 - 131% | PASS | |
| Acenaphthylene | Total | 0.561 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 112 | 43 - 140% | PASS | |
| Anthracene | Total | 0.425 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 85 | 58 - 135% | PASS | |
| Benz[a]anthracene | Total | 0.428 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 86 | 55 - 145% | PASS | |
| Benzo[a]pyrene | Total | 0.468 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 94 | 51 - 143% | PASS | |
| Benzo[b]fluoranthene | Total | 0.517 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 103 | 46 - 165% | PASS | |
| Benzo[e]pyrene | Total | 0.492 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 98 | 42 - 152% | PASS | |
| Benzo[g,h,i]perylene | Total | 0.429 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 86 | 63 - 133% | PASS | |
| Benzo[k]fluoranthene | Total | 0.495 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 99 | 56 - 145% | PASS | |
| Biphenyl | Total | 0.597 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 119 | 56 - 119% | PASS | |
| Chrysene | Total | 0.426 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 85 | 56 - 141% | PASS | |
| Dibenz[a,h]anthracene | Total | 0.526 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 105 | 55 - 150% | PASS | |
| Dibenzo[a,l]pyrene | Total | 0.503 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 101 | 50 - 150% | PASS | |

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | | PRECISION | | QA CODE _c |
|------------------------|----------|--------|----|-------|-------|-------|-------|--------|----------|-----------|-----------|--------|----------------------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS | |
| Dibenzothiophene | Total | 0.409 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 82 | 75 - 113% | PASS | | |
| Fluoranthene | Total | 0.468 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 94 | 60 - 146% | PASS | | |
| Fluorene | Total | 0.517 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 103 | 58 - 131% | PASS | | |
| Indeno[1,2,3-cd]pyrene | Total | 0.519 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 104 | 50 - 151% | PASS | | |
| Naphthalene | Total | 0.476 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 95 | 41 - 126% | PASS | | |
| Perylene | Total | 0.486 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 97 | 48 - 141% | PASS | | |
| Phenanthrene | Total | 0.417 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 83 | 67 - 127% | PASS | | |
| Pyrene | Total | 0.466 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 93 | 54 - 156% | PASS | | |

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | | PRECISION | | QA CODE | | |
|-----------------------------|----------|------------------------------|----|-------|----------------------------|-------|------------|---------------------|----------|--------|---------------------|--------|---------|----|------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS | | | |
| Sample ID: 99653-BS2 | | QAQC Procedural Blank | | | Matrix: BlankMatrix | | | Sampled: | | | Received: | | | | |
| | | Method: EPA 625.1 | | | Batch ID: O-38098 | | | Prepared: 22-Aug-22 | | | Analyzed: 30-Aug-22 | | | | |
| (d10-Acenaphthene) | Total | 104 | 1 | | | | % Recovery | 100 | 0 | 104 | 65 - 113% | PASS | 3 | 30 | PASS |
| (d10-Phenanthrene) | Total | 100 | 1 | | | | % Recovery | 100 | 0 | 100 | 80 - 111% | PASS | 6 | 30 | PASS |
| (d12-Chrysene) | Total | 93 | 1 | | | | % Recovery | 100 | 0 | 93 | 60 - 139% | PASS | 3 | 30 | PASS |
| (d12-Perylene) | Total | 96 | 1 | | | | % Recovery | 100 | 0 | 96 | 36 - 161% | PASS | 5 | 30 | PASS |
| (d8-Naphthalene) | Total | 84 | 1 | | | | % Recovery | 100 | 0 | 84 | 44 - 119% | PASS | 25 | 30 | PASS |
| 1-Methylnaphthalene | Total | 0.461 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 92 | 49 - 117% | PASS | 21 | 30 | PASS |
| 1-Methylphenanthrene | Total | 0.511 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 102 | 66 - 127% | PASS | 4 | 30 | PASS |
| 2,3,5-Trimethylnaphthalene | Total | 0.492 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 98 | 57 - 120% | PASS | 2 | 30 | PASS |
| 2,6-Dimethylnaphthalene | Total | 0.494 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 99 | 54 - 117% | PASS | 17 | 30 | PASS |
| 2-Methylnaphthalene | Total | 0.432 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 86 | 47 - 130% | PASS | 24 | 30 | PASS |
| Acenaphthene | Total | 0.494 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 99 | 53 - 131% | PASS | 18 | 30 | PASS |
| Acenaphthylene | Total | 0.479 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 96 | 43 - 140% | PASS | 15 | 30 | PASS |
| Anthracene | Total | 0.44 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 88 | 58 - 135% | PASS | 3 | 30 | PASS |
| Benz[a]anthracene | Total | 0.447 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 89 | 55 - 145% | PASS | 3 | 30 | PASS |
| Benzo[a]pyrene | Total | 0.448 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 90 | 51 - 143% | PASS | 4 | 30 | PASS |
| Benzo[b]fluoranthene | Total | 0.493 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 99 | 46 - 165% | PASS | 4 | 30 | PASS |
| Benzo[e]pyrene | Total | 0.488 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 98 | 42 - 152% | PASS | 0 | 30 | PASS |
| Benzo[g,h,i]perylene | Total | 0.431 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 86 | 63 - 133% | PASS | 0 | 30 | PASS |
| Benzo[k]fluoranthene | Total | 0.479 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 96 | 56 - 145% | PASS | 3 | 30 | PASS |
| Biphenyl | Total | 0.443 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 89 | 56 - 119% | PASS | 29 | 30 | PASS |
| Chrysene | Total | 0.437 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 87 | 56 - 141% | PASS | 2 | 30 | PASS |
| Dibenz[a,h]anthracene | Total | 0.516 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 103 | 55 - 150% | PASS | 2 | 30 | PASS |
| Dibenzo[a,l]pyrene | Total | 0.451 | 1 | 0.001 | 0.005 | µg/L | | 0.5 | 0 | 90 | 50 - 150% | PASS | 12 | 30 | PASS |

Polynuclear Aromatic Hydrocarbons

QUALITY CONTROL REPORT

| ANALYTE | FRACTION | RESULT | DF | MDL | RL | UNITS | SPIKE | SOURCE | ACCURACY | | PRECISION | | QA CODE _c | |
|------------------------|----------|--------|----|-------|-------|-------|-------|--------|----------|-----------|-----------|--------|----------------------|------|
| | | | | | | | LEVEL | RESULT | % | LIMITS | % | LIMITS | | |
| Dibenzothiophene | Total | 0.446 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 89 | 75 - 113% | PASS | 8 | 30 | PASS |
| Fluoranthene | Total | 0.503 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 101 | 60 - 146% | PASS | 7 | 30 | PASS |
| Fluorene | Total | 0.485 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 97 | 58 - 131% | PASS | 6 | 30 | PASS |
| Indeno[1,2,3-cd]pyrene | Total | 0.497 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 99 | 50 - 151% | PASS | 5 | 30 | PASS |
| Naphthalene | Total | 0.384 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 77 | 41 - 126% | PASS | 21 | 30 | PASS |
| Perylene | Total | 0.451 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 90 | 48 - 141% | PASS | 7 | 30 | PASS |
| Phenanthrene | Total | 0.451 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 90 | 67 - 127% | PASS | 8 | 30 | PASS |
| Pyrene | Total | 0.504 | 1 | 0.001 | 0.005 | µg/L | 0.5 | 0 | 101 | 54 - 156% | PASS | 8 | 30 | PASS |

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PHYSIS

TENTATIVELY

IDENTIFIED COMPOUNDS

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

Sample ID: 99654

| RT | Area Pct | Concentration (ng/L) | Library/ID | Cas Number | Match Qual |
|---------|----------|----------------------|---------------------------------|------------|------------|
| 32.5312 | 7.2989 | 1111 | Anthracene-D10- | 1719-06-8 | 97 |
| 10.8761 | 0.9014 | 137 | 2-(Chloromethyl)tetrahydropyran | 18420-41-2 | 85 |

Concentration estimated using the response for Anthracene-d10

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Sample ID: 99655

| RT | Area Pct | Concentration (ng/L) | Library/ID | Cas Number | Match Qual |
|---------|----------|----------------------|--------------------------------------|------------|------------|
| 32.5300 | 8.0561 | 1111 | Anthracene-D10- | 1719-06-8 | 97 |
| | | | No Compounds Met The Search Criteria | | |

Concentration estimated using the response for Anthracene-d10

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Sample ID: 99656

| RT | Area Pct | Concentration (ng/L) | Library/ID | Cas Number | Match Qual |
|---------|----------|----------------------|------------------------|------------|------------|
| 32.5329 | 9.0611 | 1111 | Anthracene-D10- | 1517-22-2 | 96 |
| 52.4719 | 1.2959 | 159 | Benzyl butyl phthalate | 85-68-7 | 97 |

Concentration estimated using the response for Anthracene-d10

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Sample ID: Lab Blank Batch O-38098

| RT | Area Pct | Concentration (ng/L) | Library/ID | Cas Number | Match Qual |
|---------|----------|----------------------|-----------------------------------|------------|------------|
| 32.5397 | 7.9071 | 1111 | Anthracene-D10- | 1517-22-2 | 96 |
| 11.7799 | 0.7980 | 112 | Octane, 4,5-diethyl- | 1636-41-5 | 94 |
| 12.6179 | 0.7912 | 111 | Cyclohexane, (1,2-dimethylbutyl)- | 61142-37-8 | 89 |
| 12.9766 | 0.7064 | 99 | Cyclohexane, octyl- | 1795-15-9 | 94 |

Concentration estimated using the response for Anthracene-d10

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PERFORMANCE CHAIN OF CUSTODY

TERRA ENVIRONMENTAL LABORATORIES, INC. AURA

Innovative Solutions for Nature

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Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia, CA 91016
 Phone: 626-396-1100

Chain of Custody Record



eurofins
 Environment Testing
 America

Client Information (Sub Contract Lab)

Client Contact: _____ Phone: _____
 Shipping/Receiving: _____
 Company: **Physis Environmental Laboratories**
 Address: 1904 Wright Circle, _____
 City: **Anaheim**
 State Zip: **CA, 92806**
 Phone: _____
 Email: _____
 Project Name: **RED-HILL**
 Site: **Honolulu BWS Sites**

Sampler: _____
 Lab PM: **Frank, Debbie L**
 E-Mail: **Debbie.Frank@et.eurofins.com**
 Accreditations Required (See note): **State - Hawaii**

Due Date Requested: **9/7/2022**
 TAT Requested (days): _____
 Analysis Requested: _____

Carrier Tracking No(s): _____
 State of Origin: **Hawaii**
 COC No.: **380-19168-1**
 Page: **Page 1 of 1**
 Job #: **380-18000-1**
 Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - NaOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDTA
 M - Hexane
 N - None
 O - As2O2
 P - Na2O4S
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecalhydrate
 U - Acetone
 V - MCAA
 W - pH 4-5
 Y - Trizma
 Z - other (specify)

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (Water, Seawater, Osmastatrol, BI-Tissue, Asay) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs | Total Number of containers | Special Instructions/Note: |
|--|-------------|-------------|------------------------------|--|-----------------------------------|----------------------------|--|----------------------------|----------------------------|
| AIEA GULCH WELLS PUMP 1 (331-201-T-P071) (380-18000-1) | 8/22/22 | 10:09 | Hawaiian | Water | X | X | | 2 | See Attached Instructions |
| AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-18000-2) | 8/22/22 | 09:44 | Hawaiian | Water | X | X | | 2 | See Attached Instructions |
| AIEA GULCH WELLS PUMP 2 (331-202-T-P072) (380-18000-3) | 8/22/22 | 10:36 | Hawaiian | Water | X | X | | 2 | See Attached Instructions |

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/ests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
 Unconfirmed _____
 Deliverable Requested: I, II, III, IV, Other (specify) _____
 Primary Deliverable Rank: 2
 Special Instructions/QC Requirements: _____
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: **8-24-22 15:20**
 Company: **EEA**
 Received by: **Michelle**
 Date/Time: **8-24-22 13:15**
 Company: **EEA**
 Received by: _____ Date/Time: _____
 Company: _____
 Custody Seals Intact: Yes No
 Custody Seal No.: _____
 Cooler Temperature(s) °C and Other Remarks: _____



Project Iteration ID: 1407003-279
 Client Name: Eurofins Eaton Analytical
 Project Name: RED-HILL Project # 38001111 Job # 380-18000-1
 COC Page Number: 2 of 2
 Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

- Initials Received By: RGH
- Date Received: 8/24
- Time Received: 15:25
- Client Name: Eurofins
- Courier Information: (Please circle)
 - Client
 - Client
 - FedEx
 - PHYSIS Driver:
 - Start Time: _____
 - End Time: _____
 - UPS
 - GSO/GLS
 - Area Fast
 - Ontrac
 - DRS
 - PAMS
- Container Information: (Please put the # of containers or circle none)
 - Cooler
 - Carboy(s)
 - Styrofoam Cooler
 - Carboy Trash Can(s)
 - Boxes
 - Carboy Cap(s)
 - None
 - Other _____
- What type of ice was used: (Please circle any that apply)
 - Wet Ice
 - Blue Ice
 - Dry Ice
 - Water
 - None
- Randomly Selected Samples Temperature (°C): 11.9
 Used I/R Thermometer # 1-2

Inspection Info

- Initials Inspected By: RGH

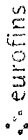
Sample Integrity Upon Receipt:

- COC(s) included and completely filled out..... Yes / No
- All sample containers arrived intact..... Yes / No
- All samples listed on COC(s) are present..... Yes / No
- Information on containers consistent with information on COC(s)..... Yes / No
- Correct containers and volume for all analyses indicated..... Yes / No
- All samples received within method holding time..... Yes / No
- Correct preservation used for all analyses indicated..... Yes / No
- Name of sampler included on COC(s)..... Yes / No

Notes:

Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia, CA 91016
 Phone: 626-386-1100

Chain of Custody Record

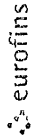


| | | | | | |
|--|--|--|--|--|--|
| Client Information Client Contact: Dr. Ron Fenstermacher Company: City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab, Honolulu, HI, 96843 Phone: 808-748-5091 (Tel) Email: RFENSTERMACHER@hbws.org Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill Site: Hawaii | | Lab P/M: Frank, Debbie L E-Mail: Debbie.Frank@eurofins.com State of Origin: | | Carrier Tracking No(s): 380-9751-2757 1 Page 1 of 3 Job # | |
| Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: C20525101 exp 05312023 WO #: Project #: 38001111 SSONW#: | | Analysis Requested SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) SUBCONTRACT - (MOD) 525plus Plus TICs SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) | | | |
| Sample Identification AIEA GULCH WELLS PUMP 1 (331-201-TP071) AIEA GULCH WELLS PUMP 2 (331-202-TP072) AIEA WELLS PUMPS 1&2(260)331-203-TP400 HALAWA SHAFT (331-241-TP401) HALAWA WELLS UNITS1&2(331-206-TP065) MOANALUA WELLS (331-223-TP202) AIEA GULCH WELLS PUMP 1 (331-201-TP071) AIEA GULCH WELLS PUMP 2 (331-202-TP072) AIEA WELLS PUMPS1&2(260)331-203-TP400 HALAWA SHAFT (331-241-TP401) HALAWA WELLS UNITS1&2(331-206-TP065) | | Sample Date: 8/22/2022 Sample Time: 1009 Sample Type (C=Comp, G=grab): G Preservation Code: | | Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) | |
| Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water Matrix: Water | | Total Number of Containers: | | Special Instructions/Note: 380-18000 COC | |
| Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological | | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | | | |
| Empty Kit Relinquished by: | | | | | |
| Relinquished by: BAILEY Date/Time: 8/22/2022 1400 Company: HBWS | | Received by: [Signature] Date/Time: 8/23/22 1040 Company: SEA | | Method of Shipment: | |
| Relinquished by: | | Received by: | | Date/Time: | |
| Relinquished by: | | Received by: | | Date/Time: | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Cooler Temperature(s) °C and Other Remarks: | | | |



Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia, CA 91016
 Phone: 626-386-1100

Chain of Custody Record



| | | | | | |
|---|--|--|--|---|--|
| Client Information | | Lab PM Frank, Debbie L | | Carrier Tracking No(s) 380-9751-2757 3 | |
| Client Contact: Dr. Ron Fenstermacher | | E-Mail Debbie.Frank@st.eurofinsus.com | | Page Page 3 of 3 | |
| Company City & County of Honolulu | | PWSID | | Job # | |
| Address: 630 South Beretania Street Chemistry Lab | | Due Date Requested: | | Preservation Codes: | |
| City Honolulu | | TAT Requested (days): | | A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: | |
| State, Zip HI, 96843 | | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No | | M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) | |
| Phone 808-748-5091(Tel) | | PO # C20525101 exp 05312023 | | Total Number of containers | |
| Email RFENSTEMACHER@hbws.org | | WO # | | Special Instructions/Note: | |
| Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill | | Project #: 38001111 | | | |
| Site: Hawaii | | SSOW#: | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=water/soil, B=Tissue, A=Air) | Preservation Code: | Field Filtered Sample (Yes or No) | | Performance/MSD (Yes or No) | | Analysis Requested | | Special Instructions/Note: |
|--|-------------|-------------|---------------------------------|---|--------------------|---|---|---|---|--|--|----------------------------|
| | | | | | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs | SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil | |
| HALAWA WELLS UNITS1&2(331-206-TP065) | | | | Water | | | | | | | | |
| MOANALUA WELLS (331-223-TP202) | | | | Water | | | | | | | | |
| TB AIEA GULCH WELLS PUMP1 331-201-TP071 | 8/22/2022 | 1009 | | Water | | | | | | X | | |
| TB AIEA GULCH WELLS PUMP2 331-202-TP07 | 8/22/2022 | 1036 | | Water | | | | | | X | | |
| TB AIEA WELLS PUMPS1&2(260)331-203-TP400 | 8/22/2022 | 0944 | | Water | | | | | | X | | |
| TB HALAWA SHAFT (331-241-TP401) | | | | Water | | | | | | | | |
| TB HALAWA WELLS UNITS1&2(331-206-TP065) | | | | Water | | | | | | | | |
| TB MOANALUA WELLS (331-223-TP202) | | | | Water | | | | | | | | |

| | | | |
|---|--|--|--|
| Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | Special Instructions/QC Requirements | |
| Empty Kit Relinquished by: | | Method of Shipment: | |
| Relinquished by: BAILEY Date/Time: 8/22/2022 1400 Company: HBWS | | Received by: YVD Date/Time: 8/23/22 10:40 Company: ESA | |
| Relinquished by: | | Received by: | |
| Relinquished by: | | Received by: | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Cooler Temperature(s) °C and Other Remarks: | |



Bottle Order Information

Bottle Order: RUSH RED-HILL WEEKLY
 Bottle Order #: 2757
 Request From Client: 7/20/2022
 Date Order Posted: 7/20/2022 11:12:54AM
 Order Status: Ready To Process
 Prepared By: Davis Haley
Deliver By Date: 8/22/2022 11:59:00PM
 Lab Project Number: 38001111
 PWSID: HI0000331

Order Completion Information

Creator: Davis Haley
 Filled by:
 Sent Date:
 Sent Via:
 Tracking #:

| Sets | Bottles/Set | Qty | Bottle Type Description | Preservative | Method | Matrix | Sample Type | Comments | Lot # |
|------|-------------|-----|---|--------------------------------------|--|--------|-------------|-------------------------|-------|
| 6 | 2 | 16 | Amber Glass 1 liter - Sodium Thiosulfate | Sodium Thiosulfate | SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs | Water | Normal | 625 PAH + MS/MSD Volume | |
| 6 | 4 | 24 | Voa Vial 40ml - Sodium Thio w/HCl-dropper | Sodium Thiosulfate | SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) | Water | Normal | | |
| 6 | 2 | 16 | Amber Glass 1 L - NaThiosulfate 8mL HCL | Sodium Thiosulfate/Hydrochloric Acid | SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil | Water | Normal | | |
| 6 | 2 | 12 | Amber Glass 1 Liter- Sodium Sulfite/HCl | Sodium Sulfite w/HCl | 525.2_PREC - (MOD) 525plus Plus TICs | Water | Normal | | |
| 6 | 2 | 12 | VOA Vial 40mL - NaThiosulfate/HCL | Sodium Thiosulfate/Hydrochloric Acid | SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL) | Water | Trip Blank | | |

Total Bottle Summary

Bottle Type Description

Amber Glass 1 L - NaThiosulfate 8mL HCL
 Amber Glass 1 liter - Sodium Thiosulfate
 Amber Glass 1 Liter- Sodium Sulfite/HCl
 VOA Vial 40mL - NaThiosulfate/HCL
 Voa Vial 40ml - SodiumThio w/HCl-dropper

Preservative

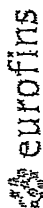
Sodium Thiosulfate/Hydrochloric Acid
 Sodium Thiosulfate
 Sodium Sulfite w/HCl
 Sodium Thiosulfate/Hydrochloric Acid
 Sodium Thiosulfate

Bottle Count

16
 16
 12
 12
 24
80
 Total Bottles:

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.





Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEEA Folder Number:

SAMPLE TEMP RECEIVED:
Note: If samples are out of temperature ranges, let the ASMs know. ASMs will determine whether to proceed with analysis or not.
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 608A (Observation = 1.3 °C) (Corr. Factor = 0.2 °C) (Final = 1.1 °C) Thawed N/A

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other:

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥ 10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

| | |
|---|---|
| 1 = (Observation = °C) (Corr. Factor = °C) (Final = °C) | 2 = (Observation = °C) (Corr. Factor = °C) (Final = °C) |
| 3 = (Observation = °C) (Corr. Factor = °C) (Final = °C) | 4 = (Observation = °C) (Corr. Factor = °C) (Final = °C) |

4) Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection) Expiration Date: Results:

5) pH Check. Manufacturer: Lot Number: pH strip type: 0 - 14 or Expiration Date: Results:

6) Chlorine check. Manufacturer: Sansafe. Lot No.: Expiration Date: Results:

7) VOA and Radon Headspace: No Samples with Headspace: Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon internal CQFC for additional bottles)
Exempt from headspace concerns: Methods 816.4, HAA (8251, 862), 806, SPME, @CH, 832LCMS, 856, 896, Angstrom, LCM's methods using 40 ml vials, International Cilaris:

| Samp ID | Bottle # | None/<6 | >6mm | Test | Samp ID | Bottle # | None/<6 | >6mm | Test |
|---------|----------|---------|------|------|---------|----------|---------|------|------|
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Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors):

RECEIVED BY: SIGNATURE: PRINT NAME: YVD DATE: 8/23/22 TIME: 10:40

SAMPLES CHECKED AGAINST COG BY: SIGNATURE: PRINT NAME: DATE: TIME:



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

ORIGIN ID:HIKA (808) 748-5840
 BWS CHEMILAB
 HONOLULU BOARD OF WATER SUPPLY
 630 S. BERETANIA ST.
 CHEMICAL LABORATORY
 HONOLULU, HI 96843
 UNITED STATES US

SHIP DATE: 22AUG22
 ACTWGT 56 00 LB
 CAD: 100205419/INET4530

TO **BROOKS**

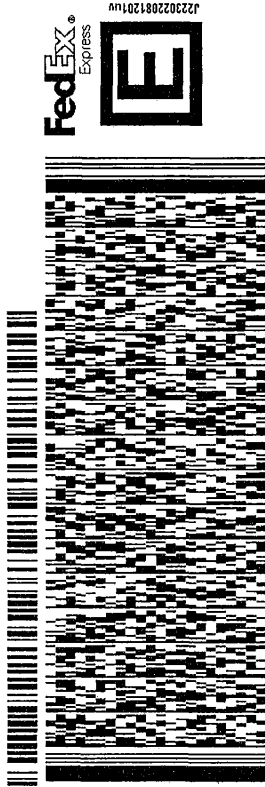
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100

MONROVIA CA 91016

(626) 386-1178
 INV REF

581J2/F39D/FE2D

PO DEPT



TUE - 23 AUG 10:30A
 PRIORITY OVERNIGHT

2 of 2

MPS# 7777 3116 3142

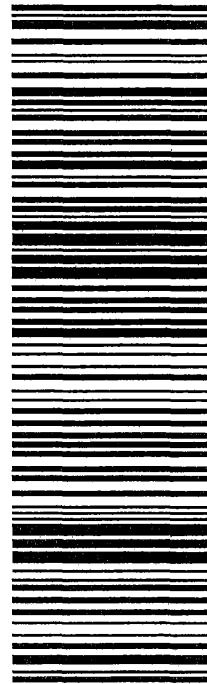
0263

Mstr# 7777 3116 3977

91016
 BUR

CA-US

WZ WHPA



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
 Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-18000-1

Login Number: 18000
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Eaton Monrovia

| Question | Answer | Comment |
|--|--------|---------|
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Samples do not require splitting or compositing. | True | |
| Container provided by EEA | True | |