DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Joint Base Pearl Harbor - Hickam	**Project Name**	Red-Hill-Incident
Data Reviewer (signature and date)	Jan 24, 2022	**Technical Reviewer (signature and date)**	Jan 26, 2022
Laboratory Report No.	2201118	**Laboratory**	Torrent Laboratory, Inc. - Milpitas, CA
Analyses	Semivolatile organic compounds (SVOC) by EPA SW-846 Method 8270 using selected ion monitoring, total petroleum hydrocarbons (TPH) by EPA SW-846 Method 8015B, TPH using silica gel (SG) by EPA SW-846 Method 8015B, total organic carbon (TOC) by SM 5310B, volatile organic compounds (VOC) by EPA SW-846 8260B, gasoline by EPA SW-846 Method 8260, and methane by RSK175		
Samples and Matrix	Four groundwater samples		
Field Duplicate Pairs	None		
Field Blanks	None		

INTRODUCTION,

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

OVERALL EVALUATION

No results were rejected for this data package. All results are usable with the qualifications described in this checklist.

Data completeness:

Within Criteria	Exceedance/Notes
N	The laboratory reported water method blank and water laboratory control sample (LCS) for TPH diesel and motor oil and TPH diesel (SG) and motor oil (SG) in solid units of milligrams per kilogram (mg/Kg). The laboratory was contacted to review this issue and confirmed the water method blank and LCS samples in units of mg/Kg are incorrect and the correct units are milligrams per liter (mg/L). The laboratory provided a revised laboratory report to correct the issue.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
N	The cooler temperature and sample preservation (as applicable) were verified upon receipt of the samples. No custody seals were present on sample or shipping containers, but no qualifications were applied for this field oversight. No chain of custody (COC) was provided in the laboratory report. The laboratory was contacted they provided a revised report with the COC form. All samples were subcontracted to the Atmospheric Analysis & Consulting Inc. for methane by EPA RSK 175. The data user should note the methane results from Atmospheric Analysis & Consulting Inc are still pending, and if necessary, the data validation report will be revised for any methane data quality issues. The volatile organic analysis vials for sample ERH2402-OWDFMW07A were not received by the laboratory. The water sample ERH2402-OWDFMW07A was collected on January 13, 2022, and four days later on January 17, 2022, the client requested the laboratory to collect a sample aliquot from an unpreserved amber container with headspace, and transfer the sample aliquot to vials without headspace and preserved with HCl for VOC, TOC, and methane analysis. The VOC water samples were analyzed within the VOC seven day hold time, but the samples were exposed to container headspace for four days before VOC sample analysis, so an unknown concentration of VOC analytes may have partitioned into the headspace of the container before the laboratory took a sample aliquot; therefore, the VOC nondetect results for sample ERH2402-OWDFMW07A were qualified as estimated (flagged UJ).

Method blanks:

Within Criteria	Exceedance/Notes
N	**TOC by 5310** • Batch 1138479: The method blank contained 0.50 mg/L of TOC; however, no qualifications were applied because the TOC results for all samples exceeded the reporting limit and are greater than 10x the concentration of TOC in the method blank.

Field blanks:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	

MS/MSD:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	Only method-specified analytes (as opposed to all reported analytes) were spiked in the LCS/LCSD. The NFG requires all of the SVOC and VOC target analytes to be spiked in the LCS/LCSD, but no qualifications were applied because the laboratory achieved the method 8270 and 8260 requirements by spiking a representative subset of SVOC and VOC method-specified analytes (as opposed to all reported analytes) in the LCS/LCSD.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed undiluted.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Analytes detected between the MDL and RL were not present. The nondetect sample results are reported at the reporting limit (identified as PQL [project quantitation limit] in the laboratory report) and qualified non-detect (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [target analyte identification]:

Within Criteria	Exceedance/Notes
N	**TPH by 8015B** • The data user should note the laboratory's evaluation of the chromatography suggested the diesel pattern for sample ERH2400-OWDFMW05A did not match the pattern of the diesel reference standard, and the laboratory stated the diesel pattern had contributions of unknown heavier organics other than typical diesel pattern within the diesel quantification range; therefore, the diesel result for ERH2400-OWDFMW05A was qualified as estimated (flagged J).

DATA VALIDATION CHECKLIST – STAGE 2A

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400-OWDFMW05A	**Lab Sample ID:**	2201118-001A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	01/19/22	13:09	TA	462923
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:09	TA	462923
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	01/19/22	13:09	TA	462923
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:09	TA	462923
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	01/19/22	13:09	TA	462923
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:09	TA	462923
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:09	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400-OWDFMW05A	**Lab Sample ID:**	2201118-001A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
3-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Acenaphthene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
4-Nitrophenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Dibenzofuran	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Diethylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Fluorene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
4-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Diphenylamine	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Azobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Hexachlorobenzene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Pentachlorophenol	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Phenanthrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Carbazole	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benz[a]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Chrysene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:09	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400-OWDFMW05A	**Lab Sample ID:**	2201118-001A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
			Acceptance Limits								
2-Fluorophenol (S)	SW8270		15 - 105		**27.2**		%	01/19/22	13:09	TA	462923
Phenol-d6 (S)	SW8270		15 - 100		**16.3**		%	01/19/22	13:09	TA	462923
Nitrobenzene-d5 (S)	SW8270		30 - 100		**95.3**		%	01/19/22	13:09	TA	462923
2-Fluorobiphenyl (S)	SW8270		30 - 105		**96.5**		%	01/19/22	13:09	TA	462923
2,4,6-Tribromophenol (S)	SW8270		15 - 125		**79.3**		%	01/19/22	13:09	TA	462923
p-Terphenyl-d14 (S)	SW8270		30 - 125		**106**		%	01/19/22	13:09	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400-OWDFMW05A	**Lab Sample ID:**	2201118-001A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	3510_TPH	**Prep Batch Date/Time:**	1/19/22 10:03:00AM
Prep Batch ID:	1138517	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	**0.102** J	x	mg/L	01/20/22	12:16	SN	462914
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	01/20/22	12:16	SN	462914
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		**95.6**		%	01/20/22	12:16	SN	462914

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly heavier than diesel quantified as diesel.

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400-OWDFMW05A	**Lab Sample ID:**	2201118-001A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	3510_TPH SG	**Prep Batch Date/Time:**	1/20/22 10:14:00AM
Prep Batch ID:	1138518	**Prep Analyst:**	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND	U	mg/L	01/20/22	16:27	SN	462920
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND	U	mg/L	01/20/22	16:27	SN	462920
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**91.5**		%	01/20/22	16:27	SN	462920

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400 -OWDFMW05A	**Lab Sample ID:**	2201118-001B
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	TOC-W-P	**Prep Batch Date/Time:**	1/18/22 1:00:00PM
Prep Batch ID:	1138476	**Prep Analyst:**	ERAGUDO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	**19.4**		mg/L	01/18/22	3:50	ERR	462875

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400 - OWDFMW05A	**Lab Sample ID:**	2201118-001C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	01/17/22	17:09	JZ	462845
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	01/17/22	17:09	JZ	462845
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	01/17/22	17:09	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400 - OWDFMW05A	**Lab Sample ID:**	2201118-001C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL		Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
o-Xylene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
Styrene	SW8260B	1	0.11	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
Bromoform	SW8260B	1	0.076	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
Bromobenzene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
n-Butylbenzene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
Naphthalene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	17:09	JZ	462845
(S) Dibromofluoromethane	SW8260B		61.2 - 131			**105**		%	01/17/22	17:09	JZ	462845
(S) Toluene-d8	SW8260B		75.1 - 127			**96.0**		%	01/17/22	17:09	JZ	462845
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			**95.2**		%	01/17/22	17:09	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2400 - OWDFMW05A	**Lab Sample ID:**	2201118-001C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 9:40		
SDG:			

Prep Method:	5030GRO	**Prep Batch Date/Time:**	1/17/22	12:01:00PM
Prep Batch ID:	1138440	**Prep Analyst:**	JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND	U	ug/L	01/17/22	17:09	JZ	462845
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		**87.4**		%	01/17/22	17:09	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Aniline	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Phenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Chlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Benzyl Alcohol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Hexachloroethane	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Nitrobenzene	SW8270	1	0.900	18	ND	U	ug/L	01/19/22	13:39	TA	462923
Isophorone	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Nitrophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Benzoic Acid	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Naphthalene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:39	TA	462923
4-Chloroaniline	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND	U	ug/L	01/19/22	13:39	TA	462923
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:39	TA	462923
2-Nitroaniline	SW8270	1	0.900	9.0	ND	U	ug/L	01/19/22	13:39	TA	462923
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Dimethyl phthalate	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	13:39	TA	462923
Acenaphthylene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	13:39	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	13:39	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
			Acceptance Limits								
2-Fluorophenol (S)	SW8270		15 - 105		**43.7**		%	01/19/22	13:39	TA	462923
Phenol-d6 (S)	SW8270		15 - 100		**25.0**		%	01/19/22	13:39	TA	462923
Nitrobenzene-d5 (S)	SW8270		30 - 100		**96.1**		%	01/19/22	13:39	TA	462923
2-Fluorobiphenyl (S)	SW8270		30 - 105		**95.3**		%	01/19/22	13:39	TA	462923
2,4,6-Tribromophenol (S)	SW8270		15 - 125		**114**		%	01/19/22	13:39	TA	462923
p-Terphenyl-d14 (S)	SW8270		30 - 125		**106**		%	01/19/22	13:39	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	3510_TPH	**Prep Batch Date/Time:**	1/19/22 10:03:00AM
Prep Batch ID:	1138517	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.053	0.14 U	ND		mg/L	01/20/22	12:39	SN	462914
TPH as Motor Oil	SW8015B	1	0.16	0.57 U	ND		mg/L	01/20/22	12:39	SN	462914
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		**97.0**		%	01/20/22	12:39	SN	462914

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	3510_TPH SG	**Prep Batch Date/Time:**	1/20/22 10:14:00AM
Prep Batch ID:	1138518	**Prep Analyst:**	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND	U	mg/L	01/20/22	16:50	SN	462920
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND	U	mg/L	01/20/22	16:50	SN	462920
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**84.9**		%	01/20/22	16:50	SN	462920

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002B
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	TOC-W-P	**Prep Batch Date/Time:**	1/18/22 1:00:00PM
Prep Batch ID:	1138476	**Prep Analyst:**	ERAGUDO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	**27.7**		mg/L	01/18/22	4:07	ERR	462875

Talaidh Isaacs 01/24/2022

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Chloromethane	SW8260B	1	0.17	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Vinyl Chloride	SW8260B	1	0.21	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Bromomethane	SW8260B	1	0.21	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Chloroethane	SW8260B	1	0.11	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Freon 113	SW8260B	1	0.34	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Methylene Chloride	SW8260B	1	0.13	1.0	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
MTBE	SW8260B	1	0.077	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
tert-Butanol	SW8260B	1	2.9	5.0	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
DIPE	SW8260B	1	0.12	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
ETBE	SW8260B	1	0.064	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Bromochloromethane	SW8260B	1	0.15	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Chloroform	SW8260B	1	0.12	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Benzene	SW8260B	1	0.065	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
TAME	SW8260B	1	0.072	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Trichloroethylene	SW8260B	1	0.15	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Dibromomethane	SW8260B	1	0.11	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Bromodichloromethane	SW8260B	1	0.076	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Toluene	SW8260B	1	0.14	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Dibromochloromethane	SW8260B	1	0.18	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Chlorobenzene	SW8260B	1	0.16	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845
Ethylbenzene	SW8260B	1	0.20	0.50	ND	UJ	ug/L	01/17/22	18:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
m,p-Xylene	SW8260B	1	0.39	1.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
o-Xylene	SW8260B	1	0.15	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Styrene	SW8260B	1	0.11	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Bromoform	SW8260B	1	0.076	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Isopropyl Benzene	SW8260B	1	0.22	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
n-Propylbenzene	SW8260B	1	0.30	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Bromobenzene	SW8260B	1	0.15	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
2-Chlorotoluene	SW8260B	1	0.25	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
4-Chlorotoluene	SW8260B	1	0.22	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
tert-Butylbenzene	SW8260B	1	0.26	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
sec-Butyl Benzene	SW8260B	1	0.30	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
p-Isopropyltoluene	SW8260B	1	0.27	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
n-Butylbenzene	SW8260B	1	0.27	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Hexachlorobutadiene	SW8260B	1	0.62	2.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
Naphthalene	SW8260B	1	1.2	2.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 UJ	ND		ug/L	01/17/22	18:39	JZ	462845
(S) Dibromofluoromethane	SW8260B		61.2 - 131		**110**		%	01/17/22	18:39	JZ	462845
(S) Toluene-d8	SW8260B		75.1 - 127		**93.2**		%	01/17/22	18:39	JZ	462845
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		**93.6**		%	01/17/22	18:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2402 - OWDFMW07A	**Lab Sample ID:**	2201118-002C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 13:00		
SDG:			

Prep Method:	5030GRO	**Prep Batch Date/Time:**	1/17/22	12:01:00PM
Prep Batch ID:	1138440	**Prep Analyst:**	JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND	U	ug/L	01/17/22	18:39	JZ	462845
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		**72.4**		%	01/17/22	18:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	01/19/22	14:08	TA	462923
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:08	TA	462923
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	01/19/22	14:08	TA	462923
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:08	TA	462923
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	01/19/22	14:08	TA	462923
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:08	TA	462923
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:08	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
3-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Acenaphthene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
4-Nitrophenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Dibenzofuran	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Diethylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Fluorene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
4-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Diphenylamine	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Azobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Hexachlorobenzene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Pentachlorophenol	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Phenanthrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Carbazole	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benz[a]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Chrysene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:08	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
			Acceptance Limits								
2-Fluorophenol (S)	SW8270		15 - 105		**44.2**		%	01/19/22	14:08	TA	462923
Phenol-d6 (S)	SW8270		15 - 100		**25.1**		%	01/19/22	14:08	TA	462923
Nitrobenzene-d5 (S)	SW8270		30 - 100		**94.3**		%	01/19/22	14:08	TA	462923
2-Fluorobiphenyl (S)	SW8270		30 - 105		**105**		%	01/19/22	14:08	TA	462923
2,4,6-Tribromophenol (S)	SW8270		15 - 125		**122**		%	01/19/22	14:08	TA	462923
p-Terphenyl-d14 (S)	SW8270		30 - 125		**106**		%	01/19/22	14:08	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	3510_TPH	**Prep Batch Date/Time:**	1/19/22 10:03:00AM
Prep Batch ID:	1138517	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10 U	ND		mg/L	01/20/22	13:03	SN	462914
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	01/20/22	13:03	SN	462914
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		**96.8**		%	01/20/22	13:03	SN	462914

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	3510_TPH SG	**Prep Batch Date/Time:**	1/20/22 10:14:00AM
Prep Batch ID:	1138518	**Prep Analyst:**	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	**0.0529**	J	mg/L	01/20/22	17:13	SN	462920
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	**0.143**	J	mg/L	01/20/22	17:13	SN	462920
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**101**		%	01/20/22	17:13	SN	462920

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003B
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	TOC-W-P	**Prep Batch Date/Time:**	1/18/22 1:00:00PM
Prep Batch ID:	1138476	**Prep Analyst:**	ERAGUDO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	**20.0**		mg/L	01/18/22	16:25	ERR	462875

Talaidh Isaacs 01/24/2022

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	01/17/22	17:39	JZ	462845
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	01/17/22	17:39	JZ	462845
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	01/17/22	17:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL		Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
o-Xylene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
Styrene	SW8260B	1	0.11	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
Bromoform	SW8260B	1	0.076	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
Bromobenzene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
n-Butylbenzene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
Naphthalene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	17:39	JZ	462845
(S) Dibromofluoromethane	SW8260B		61.2 - 131			**109**		%	01/17/22	17:39	JZ	462845
(S) Toluene-d8	SW8260B		75.1 - 127			**96.3**		%	01/17/22	17:39	JZ	462845
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			**96.6**		%	01/17/22	17:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2404- OWDFMW08A	**Lab Sample ID:**	2201118-003C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 10:00		
SDG:			

Prep Method:	5030GRO	**Prep Batch Date/Time:**	1/17/22	12:01:00PM
Prep Batch ID:	1138440	**Prep Analyst:**	JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND	U	ug/L	01/17/22	17:39	JZ	462845
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		**79.3**		%	01/17/22	17:39	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	01/19/22	14:38	TA	462923
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:38	TA	462923
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	01/19/22	14:38	TA	462923
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:38	TA	462923
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	01/19/22	14:38	TA	462923
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	01/19/22	14:38	TA	462923
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	01/19/22	14:38	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
3-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Acenaphthene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
4-Nitrophenol	SW8270	1	0.900	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Dibenzofuran	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Diethylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Fluorene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
4-Nitroaniline	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Diphenylamine	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Azobenzene	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Hexachlorobenzene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Pentachlorophenol	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Phenanthrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Carbazole	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benz[a]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Chrysene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND	U	ug/L	01/19/22	14:38	TA	462923

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	3510_BNASIM	**Prep Batch Date/Time:**	1/19/22 10:32:00AM
Prep Batch ID:	1138480	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
			Acceptance Limits								
2-Fluorophenol (S)	SW8270		15 - 105		**46.9**		%	01/19/22	14:38	TA	462923
Phenol-d6 (S)	SW8270		15 - 100		**26.6**		%	01/19/22	14:38	TA	462923
Nitrobenzene-d5 (S)	SW8270		30 - 100		**88.6**		%	01/19/22	14:38	TA	462923
2-Fluorobiphenyl (S)	SW8270		30 - 105		**99.9**		%	01/19/22	14:38	TA	462923
2,4,6-Tribromophenol (S)	SW8270		15 - 125		**113**		%	01/19/22	14:38	TA	462923
p-Terphenyl-d14 (S)	SW8270		30 - 125		**106**		%	01/19/22	14:38	TA	462923

Talaidh Isaacs 01/24/2022

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	3510_TPH	**Prep Batch Date/Time:**	1/19/22 10:03:00AM
Prep Batch ID:	1138517	**Prep Analyst:**	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10 U	ND		mg/L	01/20/22	13:26	SN	462914
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	01/20/22	13:26	SN	462914
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		**97.6**		%	01/20/22	13:26	SN	462914

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004A
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	3510_TPH SG	**Prep Batch Date/Time:**	1/20/22 10:14:00AM
Prep Batch ID:	1138518	**Prep Analyst:**	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10 U	ND		mg/L	01/20/22	17:37	SN	462920
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	01/20/22	17:37	SN	462920
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		**83.0**		%	01/20/22	17:37	SN	462920

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004B
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	TOC-W-P	**Prep Batch Date/Time:**	1/18/22 1:00:00PM
Prep Batch ID:	1138476	**Prep Analyst:**	ERAGUDO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	**20.0**		mg/L	01/18/22	16:41	ERR	462875

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	01/17/22	18:09	JZ	462845
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	01/17/22	18:09	JZ	462845
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Chloroform	SW8260B	1	0.12	0.50	**2.0**		ug/L	01/17/22	18:09	JZ	462845
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	01/17/22	18:09	JZ	462845

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	5030VOC	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138439	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL		Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
o-Xylene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
Styrene	SW8260B	1	0.11	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
Bromoform	SW8260B	1	0.076	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
Bromobenzene	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
n-Butylbenzene	SW8260B	1	0.27	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
Naphthalene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND		ug/L	01/17/22	18:09	JZ	462845
(S) Dibromofluoromethane	SW8260B		61.2 - 131			**112**		%	01/17/22	18:09	JZ	462845
(S) Toluene-d8	SW8260B		75.1 - 127			**96.3**		%	01/17/22	18:09	JZ	462845
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			**92.1**		%	01/17/22	18:09	JZ	462845

Torrent LABORATORY, INC.

Talaidh Isaacs 01/24/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 01/15/22, 11:30 am
Date Reported: 01/20/22

Client Sample ID:	ERH2398 - OWDRMW04A	**Lab Sample ID:**	2201118-004C
Project Name/Location:	HDOH Red Hill	**Sample Matrix:**	Water
Project Number:	103S518817512		
Date/Time Sampled:	01/13/22 / 12:30		
SDG:			

Prep Method:	5030GRO	**Prep Batch Date/Time:**	1/17/22 12:01:00PM
Prep Batch ID:	1138440	**Prep Analyst:**	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	01/17/22	18:09	JZ	462845
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		**81.0**		%	01/17/22	18:09	JZ	462845