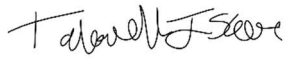
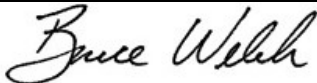


DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Joint Base Pearl Harbor - Hickam	Project Name	Red-Hill-Incident
Data Reviewer (signature and date)	 Jan 20, 2022	Technical Reviewer (signature and date)	 Jan 23, 2022
Laboratory Report No.	2112217	Laboratory	Torrent Laboratory, Inc. - Milpitas, CA
Analyses	Semi volatile 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 compounds (TOC) by SM 5310B, volatile organic compounds (VOC) by EPA SW-846 Method 8260B, methane by EPA RSK175, gasoline by EPA SW-846 Method 8260		
Samples and Matrix	Fourteen 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 blanks and water laboratory control samples (LCS) for TPH diesel and motor oil and TPH diesel (SG) and motor oil (SG) in solid units of milligrams per kilogram (mg/Kg), not in water units of milligrams per liter (mg/L). The laboratory was contacted to review this issue, and the laboratory confirmed water method blank and LCS samples in units of mg/Kg are incorrect and the correct units are mg/L. The laboratory provided a revised laboratory report to correct the issue.

DATA VALIDATION CHECKLIST – STAGE 2A

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
N	<p>All sample containers were received intact and with proper COC documentation. 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.</p> <p>The chain of custody requested SVOC by EPA 8270 SIM. The laboratory SVOC prep method was called 3510_BNASIM, but the laboratory analysis method was called SW8270. The laboratory was contacted, and they confirmed the samples were analyzed via EPA 8270 SIM.</p> <p>The data user should note that lead scavenger (ethylene dibromide and ethylene dichloride) by EPA methods SW8011/SW8260 was requested on the chain of custody, but the laboratory reported both ethylene dibromide and ethylene dichloride results by VOC method 8260B, and no qualifications were applied for this variance. Also, the laboratory reported ethylene dibromide as 1,2-dibromoethane and ethylene dichloride as 1,2-dichloroethane. All samples were subcontracted to the Atmospheric Analysis & Consulting Inc. for methane by EPA RSK 175.</p>

Method blanks:

Within Criteria	Exceedance/Notes
N	<p>TPH (SG) by 8015B</p> <ul style="list-style-type: none"> Batch 1137831: The method blank contained 0.122 mg/L of motor oil. No qualifications were applied to the motor oil nondetect results. The motor oil result for samples ERH2186-RHMMW06 and ERH2203-RHMMW14(ZONE 3) exceeded the reporting limits, but are less than 10x the concentration of motor oil in the method blank; therefore, the motor oil result for samples ERH2186-RHMMW06 and ERH2203-RHMMW14(ZONE 3) was qualified as estimated, possibly biased high (flagged J+(B)). <p>VOCs by 8260B</p> <ul style="list-style-type: none"> Batch 1137851: The method blank contained 0.26 micrograms per liter (µg/L) of isopropyl benzene, 0.28 µg/L of 1,3,5 trimethylbenzene, 0.29 µg/L of 1,2,4-trimethylbenzene, 0.28 µg/L of p-isopropyltoluene, and 0.27 µg/L of n-butylbenzene; however, no qualifications were applied because the results for these analytes for the associated samples ERH2197-OWDFMW01, ERH2186-RHMMW06, and ERH2203-RHMMW14(Zone3) were nondetect. Batch 1137889: The method blank contained 0.27 µg/L of n-butylbenzene. The n-butylbenzene result for sample ERH2180-RHMMW02 exceeded the reporting limit, but was less than 10x the concentration of n-butylbenzene in the method blank; therefore, the n-butylbenzene result for sample ERH2180-RHMMW02 was qualified as estimated, possibly biased high (flagged J+(B)).

DATA VALIDATION CHECKLIST – STAGE 2A

Method Blanks continued:

Within Criteria	Exceedance/Notes
N	<p>Gasoline by 8260</p> <ul style="list-style-type: none"> Batch 1137852: The method blank contained 33 µg/L of gasoline; however, no qualifications were applied to the gasoline results for the samples associated with this method blank because the gasoline sample results were nondetect. Batch 1137876: The method blank contained 30 µg/L of gasoline, and the gasoline result for sample ERH2201-RHMW13(Zone 5) exceeded the reporting limit but is less than 10x the concentration of gasoline in the method blank; therefore, the gasoline result for sample ERH2201-RHMW13(Zone 5) was qualified as estimated, possibly biased high (flagged J_(B)). No qualification was applied to the gasoline result for sample ERH2206-RHMW2254-01 because the gasoline result exceeded the reporting limit and was greater than 10x the concentration of gasoline in the method blank. No qualifications were applied to the gasoline nondetect result for the samples associated with this method blank. Batch 1137890: The method blank contained 33 µg/L of gasoline, and the gasoline result for samples ERH2178-RHMW01R and ERH2180-RHMW02 exceeded the reporting limit, but are less than 10x the concentration of gasoline in the method blank; therefore, the gasoline result for these samples was qualified as estimated, possibly biased high (flagged J_(B)).

Field blanks:

Within Criteria	Exceedance/Notes
NA	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	<p>VOCs by 8260B</p> <ul style="list-style-type: none"> ERH2180-RHMW02 has a 167% percent recovery for dibromofluoromethane exceed the 131% laboratory acceptance limit. The results for the detected analytes n-butylbenzene, sec-butyl benzene, tert-butylbenzene, isopropyl benzene, and n-propylbenzene were qualified as estimated, possibly biased high (flagged J+). No qualifications were applied to the nondetect VOC results.

DATA VALIDATION CHECKLIST – STAGE 2A

MS/MSD:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
Y	ERH2184-RHMW05: A laboratory duplicate analysis was only performed for TOC.

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	The data user should note that the SVOC and VOC full analyte lists were not spiked in the laboratory control sample (LCS). 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.

DATA VALIDATION CHECKLIST – STAGE 2A

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	<p>While no qualifications were applied for sample dilutions, the data user should note the increased reporting limits.</p> <p>ERH2230-INFILTRATION GW SUMP:</p> <ul style="list-style-type: none"> • Diesel, motor oil, diesel (SG), and motor oil (SG) were analyzed with 2-fold dilutions. • Gasoline and all VOC analytes were analyzed with 4.2-fold dilutions.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	<p>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 nondetect (flagged U).</p>

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A

Other [target analyte identification]:

Within Criteria	Exceedance/Notes
N	<p>TPH by 8015B</p> <ul style="list-style-type: none"> The diesel result for samples ERH2197-OWDFMW01, ERH2186-RHMW06, ERH2203-RHMW14(ZONE 3), ERH2205-RHMW15(ZONE 5A), ERH2195-RHWMW16, ERH2193-RHMW12A, ERH2184-RHMW05, ERH2178-RHMW01R, ERH2180-RHMW02, ERH2182-RHMW03, ERH2206-RHMW2254-01, ERH2230-INFILTRATION GW SUMP, and ERH2201-RHMW13(Zone 5) had contributions from unknown discrete peaks within diesel quantification range; therefore, the diesel results for these samples were qualified as estimated (flagged J). The data user should note the laboratory’s evaluation of the chromatography suggested the diesel pattern for samples ERH2180-RHMW02, ERH2206-RHMW2254-01, ERH2175-RHMW2254-01, and ERH2230-INFILTRATION GW SUMP did not match the pattern of the diesel reference standard, and the laboratory suggested the diesel pattern was weathered for these samples. <p>TPH (SG) by 8015B</p> <ul style="list-style-type: none"> The diesel (SG) result for samples ERH2186-RHMW06, ERH2178-RHMW01R, ERH2180-RHMW02, ERH2206-RHMW2254-01, and ERH2230-INFILTRATION GW SUMP had contributions from unknown discrete peaks within the diesel quantification range; therefore, the diesel (SG) result for these samples were qualified as estimated (flagged J). The data user should note the laboratory’s evaluation of the chromatography suggested the diesel pattern for samples ERH2180-RHMW02, ERH2206-RHMW2254-01, and ERH2230-INFILTRATION GW SUMP did not match the pattern of the diesel reference standard, and the laboratory suggested the diesel pattern was weathered for these samples. <p>Gasoline by 8260</p> <ul style="list-style-type: none"> The laboratory noted the sample’s gasoline pattern did not match the reference gasoline standard pattern, and the reported concentration of gasoline was contributed from non-target hydrocarbons in the heavier gasoline quantitation range C5-C12 for samples ERH2178-RHMW01R, ERH2180-RHMW02, ERH2206-RHMW2254-01, and ERH2230-INFILTRATION GW SUMP. The gasoline results for these samples were qualified as estimated (flagged J), unless superseded by a competing bias from another qualification.

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.



SAMPLE RESULTS

Report prepared for:

 Yvonne Parry
 Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21	9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	0:07	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	0:07	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	0:07	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	0:07	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:07	TA	462366



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		40.6		%	12/21/21	0:07	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		29.2		%	12/21/21	0:07	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		66.8		%	12/21/21	0:07	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		67.1		%	12/21/21	0:07	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		97.2		%	12/21/21	0:07	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		79.0		%	12/21/21	0:07	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.130 J	x	mg/L	12/21/21	0:40	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	0:40	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		98.6		%	12/21/21	0:40	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	12/21/21	19:39	sn	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	19:39	sn	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		92.6		%	12/21/21	19:39	sn	462413



SAMPLE RESULTS

Report prepared for: Yvonne Parry
 Tetra Tech Inc (HI) **Date/Time Received:** 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: TOC-W-P	Prep Batch Date/Time: 12/23/21	11:00:00AM
Prep Batch ID: 1138001	Prep Analyst: BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	24.7		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

Report prepared for:

 Yvonne Parry
 Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21	12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL	

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	12/17/21	16:16	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Freon 113	SW8260B	1	0.34	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0	U	ND	ug/L	12/17/21	16:16	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
MTBE	SW8260B	1	0.077	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0	U	ND	ug/L	12/17/21	16:16	JZ	462299
DIPE	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
ETBE	SW8260B	1	0.064	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Chloroform	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Benzene	SW8260B	1	0.065	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
TAME	SW8260B	1	0.072	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Toluene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50	U	ND	ug/L	12/17/21	16:16	JZ	462299



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	16:16	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	16:16	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131		107		%	12/17/21	16:16	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127		92.9		%	12/17/21	16:16	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		94.3		%	12/17/21	16:16	JZ	462299



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2197-OWDFMW01	Lab Sample ID:	2112217-001C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 10:35		
SDG:			

Prep Method:	5030GRO	Prep Batch Date/Time:	12/17/21 12:32:00PM
Prep Batch ID:	1137852	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	16:16	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		79.4		%	12/17/21	16:16	JZ	462299



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	0:36	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	0:36	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:36	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	0:36	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:36	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	0:36	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	0:36	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	0:36	TA	462366



SAMPLE RESULTS

Report prepared for:

 Yvonne Parry
 Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21	9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	0:36	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Acenaphthene	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Fluorene	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Diphenylamine	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Azobenzene	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Phenanthrene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Anthracene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Carbazole	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Fluoranthene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzidine	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Pyrene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Chrysene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	U	ND	ug/L	12/21/21	0:36	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		33.3		%	12/21/21	0:36	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		24.6		%	12/21/21	0:36	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		62.5		%	12/21/21	0:36	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		66.4		%	12/21/21	0:36	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		112		%	12/21/21	0:36	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		76.5		%	12/21/21	0:36	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.441 J	x	mg/L	12/21/21	1:03	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40	0.772		mg/L	12/21/21	1:03	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		96.3		%	12/21/21	1:03	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	0.205 J	x	mg/L	12/21/21	20:03	sn	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	0.464 J+(B)		mg/L	12/21/21	20:03	sn	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		95.6		%	12/21/21	20:03	sn	462413

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

Report prepared for: Yvonne Parry
 Tetra Tech Inc (HI) Date/Time Received: 12/17/21, 1:00 pm
 Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: TOC-W-P	Prep Batch Date/Time: 12/23/21	11:00:00AM
Prep Batch ID: 1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	38.8		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	16:46	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21	12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL	

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	12/17/21	16:46	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	16:46	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131		105		%	12/17/21	16:46	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127		92.6		%	12/17/21	16:46	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		97.4		%	12/17/21	16:46	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2186-RHMW06	Lab Sample ID:	2112217-002C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 13:10		
SDG:			

Prep Method:	5030GRO	Prep Batch Date/Time:	12/17/21 12:32:00PM
Prep Batch ID:	1137852	Prep Analyst:	BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	16:46	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		74.3		%	12/17/21	16:46	JZ	462299



SAMPLE RESULTS

Report prepared for:

 Yvonne Parry
 Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	1:05	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	1:05	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	1:05	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	1:05	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:05	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		33.3		%	12/21/21	1:05	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		23.3		%	12/21/21	1:05	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		63.4		%	12/21/21	1:05	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		62.3		%	12/21/21	1:05	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		96.5		%	12/21/21	1:05	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		78.2		%	12/21/21	1:05	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.142 J	x	mg/L	12/21/21	1:26	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40	0.474		mg/L	12/21/21	1:26	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		93.5		%	12/21/21	1:26	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/21/21	20:26	sn	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	0.419 J+(B)		mg/L	12/21/21	20:26	sn	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		69.1		%	12/21/21	20:26	sn	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	11.9		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	17:16	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Freon 113	SW8260B	1	0.34	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0	U	ND	ug/L	12/17/21	17:16	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
MTBE	SW8260B	1	0.077	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0	U	ND	ug/L	12/17/21	17:16	JZ	462299
DIPE	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
ETBE	SW8260B	1	0.064	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Chloroform	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Benzene	SW8260B	1	0.065	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
TAME	SW8260B	1	0.072	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Toluene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50	U	ND	ug/L	12/17/21	17:16	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	17:16	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	17:16	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131		107		%	12/17/21	17:16	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127		93.1		%	12/17/21	17:16	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		95.4		%	12/17/21	17:16	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2203-RHMW14(ZONE 3)	Lab Sample ID:	2112217-003C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/13/21 / 11:15		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137852	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	17:16	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		84.8		%	12/17/21	17:16	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	1:34	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	1:34	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	1:34	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	1:34	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366
Dibenz[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	1:34	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		38.9		%	12/21/21	1:34	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		24.0		%	12/21/21	1:34	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		75.2		%	12/21/21	1:34	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		73.2		%	12/21/21	1:34	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		98.3		%	12/21/21	1:34	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		78.8		%	12/21/21	1:34	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.106 J	x	mg/L	12/21/21	1:49	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	1:49	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		87.9		%	12/21/21	1:49	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaith Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/21/21	20:49	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	20:49	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		86.7		%	12/21/21	20:49	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	11.6		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	18:45	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21	12:32:00PM
Prep Batch ID: 1137851	Prep Analyst:	BPATEL

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	12/17/21	18:45	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	18:45	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131		109		%	12/17/21	18:45	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127		93.4		%	12/17/21	18:45	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		95.5		%	12/17/21	18:45	JZ	462299



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2205-RHMW15(ZONE 5A)	Lab Sample ID:	2112217-004C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 10:00		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137852	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	18:45	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		82.5		%	12/17/21	18:45	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	2:03	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	2:03	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	2:03	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	2:03	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:03	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		55.8		%	12/21/21	2:03	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		31.9		%	12/21/21	2:03	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		76.0		%	12/21/21	2:03	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		72.5		%	12/21/21	2:03	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		102		%	12/21/21	2:03	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		78.3		%	12/21/21	2:03	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.104 J	x	mg/L	12/21/21	2:13	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	2:13	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		90.4		%	12/21/21	2:13	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	12/21/21	21:12	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	21:12	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		96.7		%	12/21/21	21:12	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21	11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	9.00		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	19:15	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	19:15	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/17/21	19:15	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131		109		%	12/17/21	19:15	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127		91.4		%	12/17/21	19:15	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		97.4		%	12/17/21	19:15	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2195-RHWMW16	Lab Sample ID:	2112217-005C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 11:55		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137852	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	19:15	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		84.4		%	12/17/21	19:15	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	2:32	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	2:32	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	2:32	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	2:32	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	2:32	TA	462366



Talaith Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		43.8		%	12/21/21	2:32	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		24.6		%	12/21/21	2:32	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		62.5		%	12/21/21	2:32	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		58.7		%	12/21/21	2:32	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		90.5		%	12/21/21	2:32	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		74.3		%	12/21/21	2:32	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.111 J	x	mg/L	12/21/21	2:36	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	2:36	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		102		%	12/21/21	2:36	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/21/21	21:36	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	21:36	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		94.5		%	12/21/21	21:36	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	11.1		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	19:44	JZ	462299
Chloromethane	SW8260B	1	0.17	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Vinyl Chloride	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Bromomethane	SW8260B	1	0.21	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Chloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Trichlorofluoromethane	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1-Dichloroethene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Freon 113	SW8260B	1	0.34	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Methylene Chloride	SW8260B	1	0.13	1.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
MTBE	SW8260B	1	0.077	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
tert-Butanol	SW8260B	1	2.9	5.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
DIPE	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1-Dichloroethane	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
ETBE	SW8260B	1	0.064	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
2,2-Dichloropropane	SW8260B	1	0.094	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Bromochloromethane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Chloroform	SW8260B	1	0.12	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Carbon Tetrachloride	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1-Dichloropropene	SW8260B	1	0.19	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Benzene	SW8260B	1	0.065	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
TAME	SW8260B	1	0.072	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2-Dichloroethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Trichloroethylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Dibromomethane	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2-Dichloropropane	SW8260B	1	0.089	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Bromodichloromethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Toluene	SW8260B	1	0.14	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Tetrachloroethylene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Dibromochloromethane	SW8260B	1	0.18	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,3-Dichloropropane	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2-Dibromoethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Chlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Ethylbenzene	SW8260B	1	0.20	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137851	Prep Analyst: BPATEL

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	12/17/21	19:44	JZ	462299
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
o-Xylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Styrene	SW8260B	1	0.11	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Bromoform	SW8260B	1	0.076	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
Bromobenzene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
n-Butylbenzene	SW8260B	1	0.27	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
Naphthalene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/17/21	19:44	JZ	462299
(S) Dibromofluoromethane	SW8260B		61.2 - 131			106	%	12/17/21	19:44	JZ	462299
(S) Toluene-d8	SW8260B		75.1 - 127			97.5	%	12/17/21	19:44	JZ	462299
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			96.6	%	12/17/21	19:44	JZ	462299



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2193-RHMW12A	Lab Sample ID:	2112217-006C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/14/21 / 16:10		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/17/21 12:32:00PM
Prep Batch ID: 1137852	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/17/21	19:44	JZ	462299
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		80.1		%	12/17/21	19:44	JZ	462299



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	3:01	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	3:01	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	3:01	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	3:01	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:01	TA	462366



Talaith Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		52.6		%	12/21/21	3:01	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		30.3		%	12/21/21	3:01	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		71.6		%	12/21/21	3:01	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		70.0		%	12/21/21	3:01	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		99.7		%	12/21/21	3:01	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		77.7		%	12/21/21	3:01	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.106 J	x	mg/L	12/21/21	2:59	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	2:59	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		97.7		%	12/21/21	2:59	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/21/21	21:59	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	21:59	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		106		%	12/21/21	21:59	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21	11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	13.0		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	15:01	BP	462320
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/20/21	15:01	BP	462320
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/20/21	15:01	BP	462320
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/20/21	15:01	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	15:01	BP	462320
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND	ug/L	12/20/21	15:01	BP	462320
o-Xylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
Styrene	SW8260B	1	0.11	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
Bromoform	SW8260B	1	0.076	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
Bromobenzene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
n-Butylbenzene	SW8260B	1	0.27	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND	ug/L	12/20/21	15:01	BP	462320
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND	ug/L	12/20/21	15:01	BP	462320
Naphthalene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/20/21	15:01	BP	462320
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/20/21	15:01	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131			117	%	12/20/21	15:01	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127			104	%	12/20/21	15:01	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			107	%	12/20/21	15:01	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2184-RHMW05	Lab Sample ID:	2112217-007C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:35		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/20/21	15:01	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		86.8		%	12/20/21	15:01	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	3:30	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	3:30	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	3:30	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	3:30	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	3:30	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		48.0		%	12/21/21	3:30	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		27.1		%	12/21/21	3:30	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		72.8		%	12/21/21	3:30	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		70.0		%	12/21/21	3:30	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		108		%	12/21/21	3:30	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		78.0		%	12/21/21	3:30	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.315 J	x	mg/L	12/21/21	3:22	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40	0.422		mg/L	12/21/21	3:22	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		105		%	12/21/21	3:22	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	0.130 J	x	mg/L	12/21/21	22:22	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	22:22	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		105		%	12/21/21	22:22	SN	462413

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: TOC-W-P	Prep Batch Date/Time: 12/23/21 11:00:00AM
Prep Batch ID: 1138001	Prep Analyst: BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	19.6		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137889	Prep Analyst: BPATEL

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	12/21/21	13:43	BP	462336
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/21/21	13:43	BP	462336
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/21/21	13:43	BP	462336
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137889	Prep Analyst: BPATEL

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	12/21/21	13:43	BP	462336
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/21/21	13:43	BP	462336
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/21/21	13:43	BP	462336
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/21/21	13:43	BP	462336
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/21/21	13:43	BP	462336
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/21/21	13:43	BP	462336
(S) Dibromofluoromethane	SW8260B		61.2 - 131		125		%	12/21/21	13:43	BP	462336
(S) Toluene-d8	SW8260B		75.1 - 127		99.0		%	12/21/21	13:43	BP	462336
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		104		%	12/21/21	13:43	BP	462336



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2178-RHMW01R	Lab Sample ID:	2112217-008C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 13:15		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137890	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	53.1 J+(B)	x	ug/L	12/21/21	13:43	BP	462336
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		88.5		%	12/21/21	13:43	BP	462336

NOTE: x – Does not match pattern of reference Gasoline standard. Reported value due to contribution from non-target heavy hydrocarbons into the C5-C12 gasoline quantitation range.



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	4:00	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	4:00	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	4:00	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366



SAMPLE RESULTS

Report prepared for:

 Yvonne Parry
 Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02
Project Name/Location:	HDOH Red Hill
Project Number:	103S518817512
Date/Time Sampled:	12/15/21 / 14:30
SDG:	

Lab Sample ID:	2112217-009A
Sample Matrix:	Water

Prep Method:	3510_BNASIM
Prep Batch ID:	1137837

Prep Batch Date/Time:	12/20/21 9:50:00PM
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	12/21/21	4:00	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:00	TA	462366



Talaith Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		43.1		%	12/21/21	4:00	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		26.1		%	12/21/21	4:00	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		64.7		%	12/21/21	4:00	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		56.3		%	12/21/21	4:00	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		99.0		%	12/21/21	4:00	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		65.3		%	12/21/21	4:00	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	1.13 J	x	mg/L	12/21/21	3:46	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	3:46	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		103		%	12/21/21	3:46	SN	462412

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range, quantified as diesel (possibly weathered diesel).



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	0.306 J	x	mg/L	12/21/21	22:46	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	22:46	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		114		%	12/21/21	22:46	SN	462413

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly lighter than diesel quantified as diesel (possibly weathered diesel).



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	44.8		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137889	Prep Analyst: BPATEL

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	12/21/21	14:13	BP	462336
Chloromethane	SW8260B	1	0.17	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Vinyl Chloride	SW8260B	1	0.21	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Bromomethane	SW8260B	1	0.21	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Chloroethane	SW8260B	1	0.11	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Trichlorofluoromethane	SW8260B	1	0.19	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,1-Dichloroethene	SW8260B	1	0.14	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Freon 113	SW8260B	1	0.34	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Methylene Chloride	SW8260B	1	0.13	1.0	U ND		ug/L	12/21/21	14:13	BP	462336
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
MTBE	SW8260B	1	0.077	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
tert-Butanol	SW8260B	1	2.9	5.0	U ND		ug/L	12/21/21	14:13	BP	462336
DIPE	SW8260B	1	0.12	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,1-Dichloroethane	SW8260B	1	0.12	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
ETBE	SW8260B	1	0.064	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
2,2-Dichloropropane	SW8260B	1	0.094	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Bromochloromethane	SW8260B	1	0.15	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Chloroform	SW8260B	1	0.12	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Carbon Tetrachloride	SW8260B	1	0.16	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,1-Dichloropropene	SW8260B	1	0.19	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Benzene	SW8260B	1	0.065	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
TAME	SW8260B	1	0.072	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,2-Dichloroethane	SW8260B	1	0.11	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Trichloroethylene	SW8260B	1	0.15	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Dibromomethane	SW8260B	1	0.11	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,2-Dichloropropane	SW8260B	1	0.089	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Bromodichloromethane	SW8260B	1	0.076	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Toluene	SW8260B	1	0.14	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Tetrachloroethylene	SW8260B	1	0.24	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Dibromochloromethane	SW8260B	1	0.18	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,3-Dichloropropane	SW8260B	1	0.22	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
1,2-Dibromoethane	SW8260B	1	0.079	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Chlorobenzene	SW8260B	1	0.16	0.50	U ND		ug/L	12/21/21	14:13	BP	462336
Ethylbenzene	SW8260B	1	0.20	0.50	U ND		ug/L	12/21/21	14:13	BP	462336



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SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137889	Prep Analyst: BPATEL

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	12/21/21	14:13	BP	462336	
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
o-Xylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
Styrene	SW8260B	1	0.11	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
Bromoform	SW8260B	1	0.076	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
Isopropyl Benzene	SW8260B	1	0.22	0.50		0.61 J+	ug/L	12/21/21	14:13	BP	462336	
n-Propylbenzene	SW8260B	1	0.30	0.50		0.64 J+	ug/L	12/21/21	14:13	BP	462336	
Bromobenzene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
tert-Butylbenzene	SW8260B	1	0.26	0.50		0.63 J+	ug/L	12/21/21	14:13	BP	462336	
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
sec-Butyl Benzene	SW8260B	1	0.30	0.50		0.58 J+	ug/L	12/21/21	14:13	BP	462336	
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
n-Butylbenzene	SW8260B	1	0.27	0.50		0.69 J+(B)	ug/L	12/21/21	14:13	BP	462336	
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
Naphthalene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/21/21	14:13	BP	462336	
(S) Dibromofluoromethane	SW8260B		61.2 - 131			167	S	%	12/21/21	14:13	BP	462336
(S) Toluene-d8	SW8260B		75.1 - 127			100.		%	12/21/21	14:13	BP	462336
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			104		%	12/21/21	14:13	BP	462336

NOTE: S-surrogate outside of control limits (high bias) but all associated target compounds are ND at the PQL.



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2180-RHMW02	Lab Sample ID:	2112217-009C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 14:30		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/21/21 10:45:00AM
Prep Batch ID: 1137890	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	165 J+(B)	x	ug/L	12/21/21	14:13	BP	462336
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		84.7		%	12/21/21	14:13	BP	462336

NOTE: x – Does not match pattern of reference Gasoline standard. Reported value due to contribution from non-target heavy hydrocarbons into the C5-C12 gasoline quantitation range.



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SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	4:29	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	4:29	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	4:29	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	4:29	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:29	TA	462366



SAMPLE RESULTS

Report prepared for: Yvonne Parry
 Tetra Tech Inc (HI) Date/Time Received: 12/17/21, 1:00 pm
 Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21	9:50:00PM
Prep Batch ID: 1137837	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		46.3		%	12/21/21	4:29	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		27.3		%	12/21/21	4:29	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		67.1		%	12/21/21	4:29	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		66.3		%	12/21/21	4:29	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		106		%	12/21/21	4:29	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		74.6		%	12/21/21	4:29	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.206 J	x	mg/L	12/21/21	4:09	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40	0.663		mg/L	12/21/21	4:09	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		106		%	12/21/21	4:09	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/21/21	23:09	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	23:09	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		98.8		%	12/21/21	23:09	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for: Yvonne Parry
Tetra Tech Inc (HI) Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21	11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	66.9		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	15:31	BP	462320
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/20/21	15:31	BP	462320
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/20/21	15:31	BP	462320
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	15:31	BP	462320
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/20/21	15:31	BP	462320
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/20/21	15:31	BP	462320
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/20/21	15:31	BP	462320
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/20/21	15:31	BP	462320
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/20/21	15:31	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131		116		%	12/20/21	15:31	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127		102		%	12/20/21	15:31	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		103		%	12/20/21	15:31	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2182-RHMW03	Lab Sample ID:	2112217-010C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 15:50		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/20/21	15:31	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		91.5		%	12/20/21	15:31	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	4:58	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	4:58	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	4:58	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	4:58	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	4:58	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		49.9		%	12/21/21	4:58	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		29.2		%	12/21/21	4:58	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		82.7		%	12/21/21	4:58	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		64.1		%	12/21/21	4:58	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		101		%	12/21/21	4:58	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		71.7		%	12/21/21	4:58	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.536 J	x	mg/L	12/21/21	5:42	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	5:42	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		92.3		%	12/21/21	5:42	SN	462412

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range, quantified as diesel (possibly weathered diesel).



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 3510_TPH SG	Prep Batch Date/Time: 12/20/21 10:24:00AM
Prep Batch ID: 1137831	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	0.237 J	x	mg/L	12/22/21	0:42	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/22/21	0:42	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		98.0		%	12/22/21	0:42	SN	462413

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range slightly lighter than diesel quantified as diesel (possibly weathered diesel).



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	19.9		mg/L	12/23/21	12:27	BJAY	462450



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	16:01	BP	462320
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/20/21	16:01	BP	462320
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/20/21	16:01	BP	462320
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/20/21	16:01	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	16:01	BP	462320
m,p-Xylene	SW8260B	1	0.39	1.0	U	ND	ug/L	12/20/21	16:01	BP	462320
o-Xylene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
Styrene	SW8260B	1	0.11	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
Bromoform	SW8260B	1	0.076	0.50	U	0.55	ug/L	12/20/21	16:01	BP	462320
Isopropyl Benzene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
n-Propylbenzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
Bromobenzene	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
2-Chlorotoluene	SW8260B	1	0.25	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U	1.2	ug/L	12/20/21	16:01	BP	462320
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
4-Chlorotoluene	SW8260B	1	0.22	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
tert-Butylbenzene	SW8260B	1	0.26	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U	2.5	ug/L	12/20/21	16:01	BP	462320
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U	0.82	ug/L	12/20/21	16:01	BP	462320
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
n-Butylbenzene	SW8260B	1	0.27	0.50	U	1.3	ug/L	12/20/21	16:01	BP	462320
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U	ND	ug/L	12/20/21	16:01	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U	ND	ug/L	12/20/21	16:01	BP	462320
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U	ND	ug/L	12/20/21	16:01	BP	462320
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U	ND	ug/L	12/20/21	16:01	BP	462320
Naphthalene	SW8260B	1	1.2	2.0	U	2.9	ug/L	12/20/21	16:01	BP	462320
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U	ND	ug/L	12/20/21	16:01	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131			111	%	12/20/21	16:01	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127			101	%	12/20/21	16:01	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120			89.4	%	12/20/21	16:01	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2206-RHMW2254-01	Lab Sample ID:	2112217-011C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:00		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	394 J	x	ug/L	12/20/21	16:01	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		101		%	12/20/21	16:01	BP	462320

NOTE: x – Does not match pattern of reference Gasoline standard. Reported value due to contribution from non-target heavy hydrocarbons into the C5-C12 gasoline quantitation range.



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	5:27	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	5:27	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	5:27	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	5:27	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzo[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:27	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method:	3510_BNASIM	Prep Batch Date/Time:	12/20/21 9:50:00PM
Prep Batch ID:	1137837	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		43.4		%	12/21/21	5:27	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		24.5		%	12/21/21	5:27	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		61.1		%	12/21/21	5:27	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		57.9		%	12/21/21	5:27	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		97.9		%	12/21/21	5:27	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		74.2		%	12/21/21	5:27	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.190 J	x	mg/L	12/21/21	6:05	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	6:05	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		98.5		%	12/21/21	6:05	SN	462412

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range, quantified as diesel (possibly weathered diesel).



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/22/21	1:05	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/22/21	1:05	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		103		%	12/22/21	1:05	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21	11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	14.5		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	16:30	BP	462320
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/20/21	16:30	BP	462320
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/20/21	16:30	BP	462320
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/20/21	16:30	BP	462320



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	16:30	BP	462320
m,p-Xylene	SW8260B	1	0.39	1.0	U ND		ug/L	12/20/21	16:30	BP	462320
o-Xylene	SW8260B	1	0.15	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
Styrene	SW8260B	1	0.11	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
Bromoform	SW8260B	1	0.076	0.50	U 0.57		ug/L	12/20/21	16:30	BP	462320
Isopropyl Benzene	SW8260B	1	0.22	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
n-Propylbenzene	SW8260B	1	0.30	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
Bromobenzene	SW8260B	1	0.15	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
2-Chlorotoluene	SW8260B	1	0.25	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
4-Chlorotoluene	SW8260B	1	0.22	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
tert-Butylbenzene	SW8260B	1	0.26	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
sec-Butyl Benzene	SW8260B	1	0.30	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
p-Isopropyltoluene	SW8260B	1	0.27	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
n-Butylbenzene	SW8260B	1	0.27	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	U ND		ug/L	12/20/21	16:30	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	U ND		ug/L	12/20/21	16:30	BP	462320
Hexachlorobutadiene	SW8260B	1	0.62	2.0	U ND		ug/L	12/20/21	16:30	BP	462320
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	U ND		ug/L	12/20/21	16:30	BP	462320
Naphthalene	SW8260B	1	1.2	2.0	U ND		ug/L	12/20/21	16:30	BP	462320
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	U ND		ug/L	12/20/21	16:30	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131		111		%	12/20/21	16:30	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127		102		%	12/20/21	16:30	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		97.1		%	12/20/21	16:30	BP	462320



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2175-RHMW2254-01	Lab Sample ID:	2112217-012C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 9:40		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50 U	ND		ug/L	12/20/21	16:30	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		88.3		%	12/20/21	16:30	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	5:56	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	5:56	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	5:56	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	5:56	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	5:56	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		42.6		%	12/21/21	5:56	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		28.2		%	12/21/21	5:56	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		84.8		%	12/21/21	5:56	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		54.8		%	12/21/21	5:56	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		97.6		%	12/21/21	5:56	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		62.0		%	12/21/21	5:56	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 3510_TPH	Prep Batch Date/Time: 12/20/21 9:18:00AM
Prep Batch ID: 1137829	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	2	0.074	0.20	2.19 J	x	mg/L	12/21/21	9:34	SN	462412
TPH as Motor Oil	SW8015B	2	0.22	0.80 U	ND		mg/L	12/21/21	9:34	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		76.4		%	12/21/21	9:34	SN	462412

NOTE: x- Chromatographic pattern does not resemble typical diesel reference standard; unknown organics within diesel range, quantified as diesel (possibly weathered diesel).



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	2	0.074	0.20	1.34 J	x	mg/L	12/22/21	1:29	SN	462413
TPH as Motor Oil (SG)	SW8015B	2	0.22	0.80 U	ND		mg/L	12/22/21	1:29	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		76.0		%	12/22/21	1:29	SN	462413

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



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	31.2		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	4.2	1.1	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Chloromethane	SW8260B	4.2	0.70	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Vinyl Chloride	SW8260B	4.2	0.87	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Bromomethane	SW8260B	4.2	0.89	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Chloroethane	SW8260B	4.2	0.48	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Trichlorofluoromethane	SW8260B	4.2	0.78	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1-Dichloroethene	SW8260B	4.2	0.60	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Freon 113	SW8260B	4.2	1.4	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Methylene Chloride	SW8260B	4.2	0.55	4.2 U	ND		ug/L	12/20/21	18:29	BP	462320
trans-1,2-Dichloroethene	SW8260B	4.2	0.68	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
MTBE	SW8260B	4.2	0.32	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
tert-Butanol	SW8260B	4.2	12	21 U	ND		ug/L	12/20/21	18:29	BP	462320
DIPE	SW8260B	4.2	0.51	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1-Dichloroethane	SW8260B	4.2	0.51	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
ETBE	SW8260B	4.2	0.27	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
cis-1,2-Dichloroethene	SW8260B	4.2	0.63	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
2,2-Dichloropropane	SW8260B	4.2	0.39	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Bromochloromethane	SW8260B	4.2	0.63	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Chloroform	SW8260B	4.2	0.51	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Carbon Tetrachloride	SW8260B	4.2	0.66	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1,1-Trichloroethane	SW8260B	4.2	0.68	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1-Dichloropropene	SW8260B	4.2	0.78	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Benzene	SW8260B	4.2	0.27	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
TAME	SW8260B	4.2	0.30	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2-Dichloroethane	SW8260B	4.2	0.46	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Trichloroethylene	SW8260B	4.2	0.61	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Dibromomethane	SW8260B	4.2	0.45	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2-Dichloropropane	SW8260B	4.2	0.37	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Bromodichloromethane	SW8260B	4.2	0.32	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
cis-1,3-Dichloropropene	SW8260B	4.2	0.33	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Toluene	SW8260B	4.2	0.60	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Tetrachloroethylene	SW8260B	4.2	1.00	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
trans-1,3-Dichloropropene	SW8260B	4.2	0.91	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1,2-Trichloroethane	SW8260B	4.2	0.32	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Dibromochloromethane	SW8260B	4.2	0.76	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,3-Dichloropropane	SW8260B	4.2	0.91	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2-Dibromoethane	SW8260B	4.2	0.33	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Chlorobenzene	SW8260B	4.2	0.68	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Ethylbenzene	SW8260B	4.2	0.82	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	4.2	0.37	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
m,p-Xylene	SW8260B	4.2	1.7	4.2 U	ND		ug/L	12/20/21	18:29	BP	462320
o-Xylene	SW8260B	4.2	0.65	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Styrene	SW8260B	4.2	0.46	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Bromoform	SW8260B	4.2	0.32	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Isopropyl Benzene	SW8260B	4.2	0.91	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
n-Propylbenzene	SW8260B	4.2	1.2	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
Bromobenzene	SW8260B	4.2	0.63	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	4.2	0.33	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
2-Chlorotoluene	SW8260B	4.2	1.1	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,3,5-Trimethylbenzene	SW8260B	4.2	1.0	2.1 U	2.3		ug/L	12/20/21	18:29	BP	462320
1,2,3-Trichloropropane	SW8260B	4.2	0.61	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
4-Chlorotoluene	SW8260B	4.2	0.90	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
tert-Butylbenzene	SW8260B	4.2	1.1	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2,4-Trimethylbenzene	SW8260B	4.2	0.97	2.1	3.2		ug/L	12/20/21	18:29	BP	462320
sec-Butyl Benzene	SW8260B	4.2	1.2	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
p-Isopropyltoluene	SW8260B	4.2	1.1	2.1	2.3		ug/L	12/20/21	18:29	BP	462320
1,3-Dichlorobenzene	SW8260B	4.2	0.70	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,4-Dichlorobenzene	SW8260B	4.2	0.74	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
n-Butylbenzene	SW8260B	4.2	1.1	2.1	2.4		ug/L	12/20/21	18:29	BP	462320
1,2-Dichlorobenzene	SW8260B	4.2	0.67	2.1 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	4.2	3.2	8.4 U	ND		ug/L	12/20/21	18:29	BP	462320
Hexachlorobutadiene	SW8260B	4.2	2.6	8.4 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2,4-Trichlorobenzene	SW8260B	4.2	3.9	8.4 U	ND		ug/L	12/20/21	18:29	BP	462320
Naphthalene	SW8260B	4.2	5.1	8.4 U	ND		ug/L	12/20/21	18:29	BP	462320
1,2,3-Trichlorobenzene	SW8260B	4.2	5.1	8.4 U	ND		ug/L	12/20/21	18:29	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131		113		%	12/20/21	18:29	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127		101		%	12/20/21	18:29	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		93.5		%	12/20/21	18:29	BP	462320

NOTE: Due to the matrix nature (foaming), sample was analyzed with appropriate dilution.



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2230-INFILTRATION GW SUMP	Lab Sample ID:	2112217-013C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:15		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	4.2	120	210	626 J	x	ug/L	12/20/21	18:29	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		87.6		%	12/20/21	18:29	BP	462320

NOTE: x – Does not match pattern of reference Gasoline standard. Reported value due to contribution from non-target heavy hydrocarbons into the C5-C12 gasoline quantitation range.



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	6:25	TA	462366
N-Nitrosdimethylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Aniline	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Phenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Chlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1,3-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1,4-Dichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzyl Alcohol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1,2-Dichlorobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Hexachloroethane	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Nitrobenzene	SW8270	1	0.900	18 U	ND		ug/L	12/21/21	6:25	TA	462366
Isophorone	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Nitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4-Dimethylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzoic Acid	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4-Dichlorophenol	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,6-Dichlorophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Naphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Chloroaniline	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Hexachloro-1,3-butadiene	SW8270	1	0.450	18 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Methylnaphthalene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1-Methylnaphthalene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Chloronaphthalene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
2-Nitroaniline	SW8270	1	0.900	9.0 U	ND		ug/L	12/21/21	6:25	TA	462366
1,4-Dinitrobenzene	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Dimethyl phthalate	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
1,3-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Acenaphthylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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	12/21/21	6:25	TA	462366
1,2-Dinitrobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
3-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Acenaphthene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4-Dinitrophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Nitrophenol	SW8270	1	0.900	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Dibenzofuran	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
2,4-Dinitrotoluene	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Diethylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Fluorene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Nitroaniline	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Diphenylamine	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Azobenzene	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Hexachlorobenzene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Pentachlorophenol	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Phenanthrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Carbazole	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Di-n-butylphthalate	SW8270	1	0.450	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzyl butyl phthalate	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benz[a]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Chrysene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Di-n-octyl phthalate	SW8270	1	0.180	3.6 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzo[b]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzo[k]fluoranthene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzo[a]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzo[a,h]anthracene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54 U	ND		ug/L	12/21/21	6:25	TA	462366



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 3510_BNASIM	Prep Batch Date/Time: 12/20/21 9:50:00PM
Prep Batch ID: 1137837	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		38.9		%	12/21/21	6:25	TA	462366
Phenol-d6 (S)	SW8270		15 - 100		21.7		%	12/21/21	6:25	TA	462366
Nitrobenzene-d5 (S)	SW8270		30 - 100		56.0		%	12/21/21	6:25	TA	462366
2-Fluorobiphenyl (S)	SW8270		30 - 105		53.5		%	12/21/21	6:25	TA	462366
2,4,6-Tribromophenol (S)	SW8270		15 - 125		88.6		%	12/21/21	6:25	TA	462366
p-Terphenyl-d14 (S)	SW8270		30 - 125		71.7		%	12/21/21	6:25	TA	462366



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Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/20/21 9:18:00AM
Prep Batch ID:	1137829	Prep Analyst:	AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	0.111 J	x	mg/L	12/21/21	6:51	SN	462412
TPH as Motor Oil	SW8015B	1	0.11	0.40 U	ND		mg/L	12/21/21	6:51	SN	462412
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		95.8		%	12/21/21	6:51	SN	462412

NOTE: x- Diesel result due to unknown organics and presence of discrete peaks within diesel quantified range



Talaidh Isaacs 01/21/2022

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Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014A
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method:	3510_TPH SG	Prep Batch Date/Time:	12/20/21 10:24:00AM
Prep Batch ID:	1137831	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	12/22/21	1:52	SN	462413
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40 U	ND		mg/L	12/22/21	1:52	SN	462413
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		99.0		%	12/22/21	1:52	SN	462413



Talaidh Isaacs 01/21/2022

SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014B
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method:	TOC-W-P	Prep Batch Date/Time:	12/23/21 11:00:00AM
Prep Batch ID:	1138001	Prep Analyst:	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	21.6		mg/L	12/23/21	12:27	BJAY	462450



SAMPLE RESULTS

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

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	17:00	BP	462320
Chloromethane	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Vinyl Chloride	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Bromomethane	SW8260B	1	0.21	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Chloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Trichlorofluoromethane	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1-Dichloroethene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Freon 113	SW8260B	1	0.34	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Methylene Chloride	SW8260B	1	0.13	1.0 U	ND		ug/L	12/20/21	17:00	BP	462320
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
MTBE	SW8260B	1	0.077	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
tert-Butanol	SW8260B	1	2.9	5.0 U	ND		ug/L	12/20/21	17:00	BP	462320
DIPE	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1-Dichloroethane	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
ETBE	SW8260B	1	0.064	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
2,2-Dichloropropane	SW8260B	1	0.094	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Bromochloromethane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Chloroform	SW8260B	1	0.12	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Carbon Tetrachloride	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1-Dichloropropene	SW8260B	1	0.19	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Benzene	SW8260B	1	0.065	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
TAME	SW8260B	1	0.072	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2-Dichloroethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Trichloroethylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Dibromomethane	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2-Dichloropropane	SW8260B	1	0.089	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Bromodichloromethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Toluene	SW8260B	1	0.14	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Tetrachloroethylene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Dibromochloromethane	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,3-Dichloropropane	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2-Dibromoethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Chlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Ethylbenzene	SW8260B	1	0.20	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm

Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137875	Prep Analyst: BPATEL

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	12/20/21	17:00	BP	462320
m,p-Xylene	SW8260B	1	0.39	1.0 U	ND		ug/L	12/20/21	17:00	BP	462320
o-Xylene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Styrene	SW8260B	1	0.11	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Bromoform	SW8260B	1	0.076	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Isopropyl Benzene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
n-Propylbenzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
Bromobenzene	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
2-Chlorotoluene	SW8260B	1	0.25	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
4-Chlorotoluene	SW8260B	1	0.22	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
tert-Butylbenzene	SW8260B	1	0.26	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
sec-Butyl Benzene	SW8260B	1	0.30	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
p-Isopropyltoluene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
n-Butylbenzene	SW8260B	1	0.27	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0 U	ND		ug/L	12/20/21	17:00	BP	462320
Hexachlorobutadiene	SW8260B	1	0.62	2.0 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0 U	ND		ug/L	12/20/21	17:00	BP	462320
Naphthalene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/20/21	17:00	BP	462320
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0 U	ND		ug/L	12/20/21	17:00	BP	462320
(S) Dibromofluoromethane	SW8260B		61.2 - 131		114		%	12/20/21	17:00	BP	462320
(S) Toluene-d8	SW8260B		75.1 - 127		99.4		%	12/20/21	17:00	BP	462320
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		102		%	12/20/21	17:00	BP	462320



SAMPLE RESULTS

Report prepared for:

Yvonne Parry
Tetra Tech Inc (HI)

Date/Time Received: 12/17/21, 1:00 pm
Date Reported: 12/27/21

Client Sample ID:	ERH2201-RHMW13(Zone 5)	Lab Sample ID:	2112217-014C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/15/21 / 11:40		
SDG:			

Prep Method: 5030GRO	Prep Batch Date/Time: 12/20/21 10:34:00AM
Prep Batch ID: 1137876	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	50.4 J+(B)		ug/L	12/20/21	17:00	BP	462320
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		106		%	12/20/21	17:00	BP	462320