



Tetra Tech Inc (HI)  
737 Bishop St, Suite 2340  
Honolulu, Hawaii 96813  
Tel: 808-441-6600  
Email: Yvonne.parry@Tetrattech.com  
RE: HDOH Red Hill

Work Order No.: 2112332 Rev. 1

Dear Yvonne Parry:

Torrent Laboratory, Inc. received 9 sample(s) on December 29, 2021 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that reads "Kathie Evans". The signature is written in a cursive style and is positioned above a horizontal line.

Kathie Evans  
Project Manager

January 06, 2022

Date



**Date:** 1/6/2022

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**Client:** Tetra Tech Inc (HI)

**Project:** HDOH Red Hill

**Work Order:** 2112332

### **CASE NARRATIVE**

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Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Laboratory, Inc

Methane analysis was sub-contracted

to ELAP certified laboratory AAC. Sub-contract data will follow under a separate cover.

### **REVISIONS**

Report revised to include sub-contracted methane data. Sub-contract data appear as an attachment to the Torrent generated report.

Rev. 1 (1/13/22)



## Sample Result Summary

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

**Date Received:** 12/29/21

**Date Reported:** 01/06/22

**ERH2287-RHMW2254-01 (bail)**

2112332-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	1	29	50	83.5	ug/L
TOC	A5310B	1	0.40	2.0	15.8	mg/L
TPH as Diesel	SW8015B	1	0.037	0.10	1.14	mg/L
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	0.571	mg/L

**ERH2289-RHMW2254-01 (LF)**

2112332-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TOC	A5310B	1	0.40	2.0	16.0	mg/L
TPH as Diesel	SW8015B	1	0.037	0.10	0.192	mg/L

**ERH2291-Sump Adit 3**

2112332-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	4.2	120	210	468	ug/L
TOC	A5310B	1	0.40	2.0	23.4	mg/L
TPH as Diesel	SW8015B	5	0.19	0.50	4.78	mg/L
TPH as Diesel (SG)	SW8015B	5	0.19	0.50	2.45	mg/L
1,3,5-Trimethylbenzene	SW8260B	4.2	1.0	2.1	2.5	ug/L
Fluoranthene	SW8270	1	0.180	0.54	0.781	ug/L
Pyrene	SW8270	1	0.180	0.54	1.12	ug/L
Benzyl butyl phthalate	SW8270	1	0.180	0.54	0.592	ug/L
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	4.53	ug/L

**ERH2293-OWDFMW01**

2112332-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TOC	A5310B	1	0.40	2.0	26.7	mg/L

**ERH2276-RHMW14 (Zone 03)**

2112332-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TOC	A5310B	1	0.40	2.0	10.5	mg/L

**ERH2285-RHMW05**

2112332-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TOC	A5310B	1	0.40	2.0	14.0	mg/L
TPH as Diesel	SW8015B	1	0.037	0.10	0.126	mg/L

**ERH2279-RHMW01R**

2112332-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	1	29	50	52.8	ug/L
TOC	A5310B	1	0.40	2.0	16.8	mg/L
TPH as Diesel	SW8015B	1	0.042	0.11	0.281	mg/L



### Sample Result Summary

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

Date Received: 12/29/21

Date Reported: 01/06/22

ERH2281-RHMW02

2112332-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Gasoline)	8260TPH	4.2	120	210	604	ug/L
TOC	A5310B	1	0.40	2.0	45.7	mg/L
TPH as Diesel	SW8015B	2	0.074	0.20	2.21	mg/L
TPH as Diesel (SG)	SW8015B	2	0.074	0.20	0.239	mg/L
Isopropyl Benzene	SW8260B	4.2	0.91	2.1	2.3	ug/L
n-Propylbenzene	SW8260B	4.2	1.2	2.1	2.8	ug/L
n-Butylbenzene	SW8260B	4.2	1.1	2.1	2.7	ug/L
Naphthalene	SW8260B	4.2	5.1	8.4	140	ug/L
Naphthalene	SW8270	5	0.900	2.7	7.99	ug/L

ERH2283-RHMW03

2112332-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TOC	A5310B	1	0.40	2.0	71.7	mg/L
TPH as Diesel	SW8015B	1	0.037	0.10	0.247	mg/L
TPH as Motor Oil	SW8015B	1	0.11	0.40	0.672	mg/L



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
N-Nitrosodimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/29/21	21:50	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/29/21	21:50	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/29/21	21:50	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	21:50	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	21:50	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		32.4		%	12/29/21	21:50	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		19.6		%	12/29/21	21:50	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		88.4		%	12/29/21	21:50	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		70.6		%	12/29/21	21:50	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		100.		%	12/29/21	21:50	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		69.0		%	12/29/21	21:50	TA	462618



## SAMPLE RESULTS

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**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>1.14</b>	x	mg/L	01/03/22	18:56	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	ND		mg/L	01/03/22	18:56	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>104</b>		%	01/03/22	18:56	SN	462602

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly weathered diesel





### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	<b>0.571</b>	x	mg/L	01/05/22	17:09	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	17:09	SN	462647
Acceptance Limits											
Pentacosane (S)	SW8015B		40 - 129		<b>95.7</b>		%	01/05/22	17:09	SN	462647

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly other type of fuel.



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	15.8		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138056	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/29/21	22:04	JZ	462490
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/29/21	22:04	JZ	462490
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/29/21	22:04	JZ	462490



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138056	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/29/21	22:04	JZ	462490
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:04	JZ	462490
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/29/21	22:04	JZ	462490
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/29/21	22:04	JZ	462490
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/29/21	22:04	JZ	462490
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/29/21	22:04	JZ	462490
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/29/21	22:04	JZ	462490
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>112</b>		%	12/29/21	22:04	JZ	462490
(S) Toluene-d8	SW8260B		75.1 - 127		<b>95.3</b>		%	12/29/21	22:04	JZ	462490
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>93.0</b>		%	12/29/21	22:04	JZ	462490



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138083	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	<b>83.5</b>	x	ug/L	12/29/21	22:04	JZ	462490
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>88.8</b>		%	12/29/21	22:04	JZ	462490

**NOTE:** x – Does not match pattern of reference Gasoline standard. Result is elevated due to contribution from heavy end hydrocarbons in the C5-C12 Gasoline quantitation range.



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001E
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> PFAS-W-QSM 5.3	<b>Prep Batch Date/Time:</b> 12/29/21	3:02:00PM
<b>Prep Batch ID:</b> 1138049	<b>Prep Analyst:</b> TOMA	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
4 2 FTS	QSM 5.3 Table B-15	1	2.74	10.0	ND		ng/L	12/29/21	19:34	MK	462593
6 2 FTS	QSM 5.3 Table B-15	1	2.37	10.0	ND		ng/L	12/29/21	19:34	MK	462593
8 2 FTS	QSM 5.3 Table B-15	1	3.09	10.0	ND		ng/L	12/29/21	19:34	MK	462593
10:2 Fluorotelomer sulfonic acid	QSM 5.3 Table B-15	1	1.37	5.00	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorobutanoic acid	QSM 5.3 Table B-15	1	2.14	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluoropentanoic acid	QSM 5.3 Table B-15	1	1.40	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorobutane sulfonic acid	QSM 5.3 Table B-15	1	3.49	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorohexanoic acid	QSM 5.3 Table B-15	1	1.29	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluoropentane sulfonic acid	QSM 5.3 Table B-15	1	1.61	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluoroheptanoic acid	QSM 5.3 Table B-15	1	3.48	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorohexane sulfonic acid (PFHxS)	QSM 5.3 Table B-15	1	2.91	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorooctanoic acid	QSM 5.3 Table B-15	1	2.37	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorononanoic acid	QSM 5.3 Table B-15	1	4.71	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluoroheptane sulfonic acid (PFHpS)	QSM 5.3 Table B-15	1	2.75	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorooctane sulfonic acid	QSM 5.3 Table B-15	1	3.49	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorodecanoic acid	QSM 5.3 Table B-15	1	4.18	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorononane sulfonic acid (PFNS)	QSM 5.3 Table B-15	1	3.20	10.0	ND		ng/L	12/29/21	19:34	MK	462593
NMeFOSAA	QSM 5.3 Table B-15	1	2.41	10.0	ND		ng/L	12/29/21	19:34	MK	462593
NEtFOSAA	QSM 5.3 Table B-15	1	2.90	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluoroundecanoic acid	QSM 5.3 Table B-15	1	2.37	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorodecane sulfonic acid (PFDS)	QSM 5.3 Table B-15	1	1.66	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorododecanoic acid	QSM 5.3 Table B-15	1	1.79	5.00	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorotridecanoic acid	QSM 5.3 Table B-15	1	1.31	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorotetradecanoic acid	QSM 5.3 Table B-15	1	1.74	10.0	ND		ng/L	12/29/21	19:34	MK	462593



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2287-RHMW2254-01 (bail)	<b>Lab Sample ID:</b>	2112332-001E
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:07		
<b>SDG:</b>			

<b>Prep Method:</b> PFAS-W-QSM 5.3	<b>Prep Batch Date/Time:</b> 12/29/21	3:02:00PM
<b>Prep Batch ID:</b> 1138049	<b>Prep Analyst:</b> TOMA	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Perfluorooctanesulfonamide	QSM 5.3 Table B-15	1	2.36	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorobutanesulfoamide	QSM 5.3 Table B-15	1	2.36	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Gen-X	QSM 5.3 Table B-15	1	3.95	15.0	ND		ng/L	12/29/21	19:34	MK	462593
ADONA	QSM 5.3 Table B-15	1	2.44	10.0	ND		ng/L	12/29/21	19:34	MK	462593
Perfluorohexanesulfoamide	QSM 5.3 Table B-15	1	4.50	10.0	ND		ng/L	12/29/21	19:34	MK	462593
9-CI-PF3ONS	QSM 5.3 Table B-15	1	1.55	5.00	ND		ng/L	12/29/21	19:34	MK	462593
11-CI-PF3OUdS	QSM 5.3 Table B-15	1	1.32	5.00	ND		ng/L	12/29/21	19:34	MK	462593



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/29/21	22:20	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/29/21	22:20	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/29/21	22:20	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618





## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:20	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:20	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		<b>36.6</b>		%	12/29/21	22:20	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		<b>21.0</b>		%	12/29/21	22:20	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		<b>69.0</b>		%	12/29/21	22:20	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		<b>74.0</b>		%	12/29/21	22:20	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		<b>105</b>		%	12/29/21	22:20	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		<b>72.3</b>		%	12/29/21	22:20	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>0.192</b>	x	mg/L	01/03/22	19:20	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	ND		mg/L	01/03/22	19:20	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>100</b>		%	01/03/22	19:20	SN	462602

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly weathered diesel



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	01/05/22	17:33	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	17:33	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>110</b>		%	01/05/22	17:33	SN	462647



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	<b>16.0</b>		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138056	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/29/21	22:33	JZ	462490
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/29/21	22:33	JZ	462490
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/29/21	22:33	JZ	462490



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138056	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/29/21	22:33	JZ	462490
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/29/21	22:33	JZ	462490
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/29/21	22:33	JZ	462490
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/29/21	22:33	JZ	462490
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/29/21	22:33	JZ	462490
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/29/21	22:33	JZ	462490
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/29/21	22:33	JZ	462490
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>112</b>		%	12/29/21	22:33	JZ	462490
(S) Toluene-d8	SW8260B		75.1 - 127		<b>94.1</b>		%	12/29/21	22:33	JZ	462490
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>96.4</b>		%	12/29/21	22:33	JZ	462490



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2289-RHMW2254-01 (LF)	<b>Lab Sample ID:</b>	2112332-002C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/29/21	11:12:00AM
<b>Prep Batch ID:</b> 1138083	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND		ug/L	12/29/21	22:33	JZ	462490
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		83.2		%	12/29/21	22:33	JZ	462490





## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/29/21	22:49	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/29/21	22:49	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/29/21	22:49	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	<b>0.781</b>		ug/L	12/29/21	22:49	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Pyrene	SW8270	1	0.180	0.54	<b>1.12</b>		ug/L	12/29/21	22:49	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	<b>0.592</b>		ug/L	12/29/21	22:49	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	<b>4.53</b>	E	ug/L	12/29/21	22:49	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	22:49	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	22:49	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		31.5		%	12/29/21	22:49	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		20.5		%	12/29/21	22:49	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		229	S	%	12/29/21	22:49	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		72.3		%	12/29/21	22:49	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		113		%	12/29/21	22:49	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		73.0		%	12/29/21	22:49	TA	462618

**NOTE:** S-surrogate outside of control limits due to possible matrix interference  
E=estimated concentration (slightly outside of calibration range).



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	5	0.19	0.50	4.78	x	mg/L	01/04/22	9:09	SN	462602
TPH as Motor Oil	SW8015B	5	0.56	2.0	ND		mg/L	01/04/22	9:09	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		85.8		%	01/04/22	9:09	SN	462602

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly weathered diesel



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	5	0.19	0.50	<b>2.45</b>	x	mg/L	01/05/22	17:56	SN	462647
TPH as Motor Oil (SG)	SW8015B	5	0.56	2.0	ND		mg/L	01/05/22	17:56	SN	462647
Acceptance Limits											
Pentacosane (S)	SW8015B		40 - 129		<b>78.5</b>		%	01/05/22	17:56	SN	462647

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range; (possibly weathered diesel or other type of fuel).



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	23.4		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Chloromethane	SW8260B	4.2	0.70	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Vinyl Chloride	SW8260B	4.2	0.87	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Bromomethane	SW8260B	4.2	0.89	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Chloroethane	SW8260B	4.2	0.48	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Trichlorofluoromethane	SW8260B	4.2	0.78	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1-Dichloroethene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Freon 113	SW8260B	4.2	1.4	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Methylene Chloride	SW8260B	4.2	0.55	4.2	ND		ug/L	12/30/21	14:17	JZ	462542
trans-1,2-Dichloroethene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
MTBE	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
tert-Butanol	SW8260B	4.2	12	21	ND		ug/L	12/30/21	14:17	JZ	462542
DIPE	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1-Dichloroethane	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
ETBE	SW8260B	4.2	0.27	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
cis-1,2-Dichloroethene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
2,2-Dichloropropane	SW8260B	4.2	0.39	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Bromochloromethane	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Chloroform	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Carbon Tetrachloride	SW8260B	4.2	0.66	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1,1-Trichloroethane	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1-Dichloropropene	SW8260B	4.2	0.78	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Benzene	SW8260B	4.2	0.27	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
TAME	SW8260B	4.2	0.30	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2-Dichloroethane	SW8260B	4.2	0.46	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Trichloroethylene	SW8260B	4.2	0.61	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Dibromomethane	SW8260B	4.2	0.45	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2-Dichloropropane	SW8260B	4.2	0.37	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Bromodichloromethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
cis-1,3-Dichloropropene	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Toluene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Tetrachloroethylene	SW8260B	4.2	1.00	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
trans-1,3-Dichloropropene	SW8260B	4.2	0.91	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1,2-Trichloroethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Dibromochloromethane	SW8260B	4.2	0.76	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,3-Dichloropropane	SW8260B	4.2	0.91	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2-Dibromoethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Chlorobenzene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Ethylbenzene	SW8260B	4.2	0.82	2.1	ND		ug/L	12/30/21	14:17	JZ	462542



## SAMPLE RESULTS

Report prepared for:

Yvonne Parry  
Tetra Tech Inc (HI)

Date/Time Received: 12/29/21, 10:35 am

Date Reported: 01/06/22

Client Sample ID:	ERH2291-Sump Adit 3	Lab Sample ID:	2112332-003C
Project Name/Location:	HDOH Red Hill	Sample Matrix:	Water
Project Number:	103S518817512		
Date/Time Sampled:	12/27/21 / 12:45		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/30/21	11:03:00AM
Prep Batch ID: 1138098	Prep Analyst: JZHAO	

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	ND		ug/L	12/30/21	14:17	JZ	462542
m,p-Xylene	SW8260B	4.2	1.7	4.2	ND		ug/L	12/30/21	14:17	JZ	462542
o-Xylene	SW8260B	4.2	0.65	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Styrene	SW8260B	4.2	0.46	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Bromoform	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Isopropyl Benzene	SW8260B	4.2	0.91	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
n-Propylbenzene	SW8260B	4.2	1.2	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
Bromobenzene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,1,2,2-Tetrachloroethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
2-Chlorotoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	4.2	1.0	2.1	2.5		ug/L	12/30/21	14:17	JZ	462542
1,2,3-Trichloropropane	SW8260B	4.2	0.61	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
4-Chlorotoluene	SW8260B	4.2	0.90	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
tert-Butylbenzene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	4.2	0.97	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
sec-Butyl Benzene	SW8260B	4.2	1.2	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
p-Isopropyltoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,3-Dichlorobenzene	SW8260B	4.2	0.70	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,4-Dichlorobenzene	SW8260B	4.2	0.74	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
n-Butylbenzene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2-Dichlorobenzene	SW8260B	4.2	0.67	2.1	ND		ug/L	12/30/21	14:17	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	4.2	3.2	8.4	ND		ug/L	12/30/21	14:17	JZ	462542
Hexachlorobutadiene	SW8260B	4.2	2.6	8.4	ND		ug/L	12/30/21	14:17	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	4.2	3.9	8.4	ND		ug/L	12/30/21	14:17	JZ	462542
Naphthalene	SW8260B	4.2	5.1	8.4	ND		ug/L	12/30/21	14:17	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	4.2	5.1	8.4	ND		ug/L	12/30/21	14:17	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		105		%	12/30/21	14:17	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		96.6		%	12/30/21	14:17	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		90.7		%	12/30/21	14:17	JZ	462542

**NOTE:** Reporting limits raised due to high level of end hydrocarbon compounds.





### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2291-Sump Adit 3	<b>Lab Sample ID:</b>	2112332-003C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 12:45		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	4.2	120	210	<b>468</b>	x	ug/L	12/30/21	14:17	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>81.5</b>		%	12/30/21	14:17	JZ	462542

**NOTE:** x – Does not match pattern of reference Gasoline standard. Result is elevated due to contribution from heavy end hydrocarbons to the C5-C12 range quantified as Gasoline.



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/29/21	23:18	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/29/21	23:18	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/29/21	23:18	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:18	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:18	TA	462618



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		31.2		%	12/29/21	23:18	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		24.5		%	12/29/21	23:18	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		68.7		%	12/29/21	23:18	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		72.1		%	12/29/21	23:18	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		101		%	12/29/21	23:18	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		73.6		%	12/29/21	23:18	TA	462618



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	ND		mg/L	01/03/22	20:06	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	ND		mg/L	01/03/22	20:06	SN	462602
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		<b>95.4</b>		%	01/03/22	20:06	SN	462602



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	01/05/22	18:20	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	18:20	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>102</b>		%	01/05/22	18:20	SN	462647



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	26.7		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/30/21	14:46	JZ	462542
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/30/21	14:46	JZ	462542
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/30/21	14:46	JZ	462542





## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b>	JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/30/21	14:46	JZ	462542
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	14:46	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/30/21	14:46	JZ	462542
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/30/21	14:46	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/30/21	14:46	JZ	462542
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	14:46	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	14:46	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>105</b>		%	12/30/21	14:46	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>95.3</b>		%	12/30/21	14:46	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>98.2</b>		%	12/30/21	14:46	JZ	462542



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2293-OWDFMW01	<b>Lab Sample ID:</b>	2112332-004C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 15:10		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND		ug/L	12/30/21	14:46	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>81.8</b>		%	12/30/21	14:46	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
N-Nitrosodimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/29/21	23:47	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/29/21	23:47	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/29/21	23:47	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/29/21	23:47	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/29/21	23:47	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		<b>28.0</b>		%	12/29/21	23:47	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		<b>16.1</b>		%	12/29/21	23:47	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		<b>62.6</b>		%	12/29/21	23:47	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		<b>66.5</b>		%	12/29/21	23:47	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		<b>92.8</b>		%	12/29/21	23:47	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		<b>72.2</b>		%	12/29/21	23:47	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	ND		mg/L	01/03/22	20:30	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	ND		mg/L	01/03/22	20:30	SN	462602
			Acceptance Limits								
Pentacosane (S)	SW8015B		59 - 129		<b>96.1</b>		%	01/03/22	20:30	SN	462602



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	01/05/22	18:43	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	18:43	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>106</b>		%	01/05/22	18:43	SN	462647



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	<b>10.5</b>		mg/L	01/04/22	13:26	BJAY	462640





## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/30/21	15:16	JZ	462542
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/30/21	15:16	JZ	462542
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/30/21	15:16	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/30/21	15:16	JZ	462542
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:16	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/30/21	15:16	JZ	462542
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/30/21	15:16	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/30/21	15:16	JZ	462542
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	15:16	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	15:16	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>105</b>		%	12/30/21	15:16	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>98.0</b>		%	12/30/21	15:16	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>99.8</b>		%	12/30/21	15:16	JZ	462542



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2276-RHMW14 (Zone 03)	<b>Lab Sample ID:</b>	2112332-005C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND		ug/L	12/30/21	15:16	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>84.6</b>		%	12/30/21	15:16	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21 4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
N-Nitrosodimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/30/21	0:16	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/30/21	0:16	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/30/21	0:16	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:16	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:16	TA	462618



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		<b>29.2</b>		%	12/30/21	0:16	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		<b>17.8</b>		%	12/30/21	0:16	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		<b>64.3</b>		%	12/30/21	0:16	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		<b>66.8</b>		%	12/30/21	0:16	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		<b>107</b>		%	12/30/21	0:16	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		<b>71.9</b>		%	12/30/21	0:16	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>0.126</b>	x	mg/L	01/03/22	20:53	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	ND		mg/L	01/03/22	20:53	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>95.7</b>		%	01/03/22	20:53	SN	462602

**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:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	01/05/22	19:07	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	19:07	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>97.5</b>		%	01/05/22	19:07	SN	462647





### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	<b>14.0</b>		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/30/21	15:46	JZ	462542
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/30/21	15:46	JZ	462542
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/30/21	15:46	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/30/21	15:46	JZ	462542
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,1,1,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	15:46	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/30/21	15:46	JZ	462542
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/30/21	15:46	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/30/21	15:46	JZ	462542
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	15:46	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	15:46	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>107</b>		%	12/30/21	15:46	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>95.8</b>		%	12/30/21	15:46	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>98.2</b>		%	12/30/21	15:46	JZ	462542



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2285-RHMW05	<b>Lab Sample ID:</b>	2112332-006C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 9:25		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND		ug/L	12/30/21	15:46	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>82.3</b>		%	12/30/21	15:46	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH22797-RHMW01R	<b>Lab Sample ID:</b>	2112332-007A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/30/21	0:46	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/30/21	0:46	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/30/21	0:46	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH22797-RHMW01R	<b>Lab Sample ID:</b>	2112332-007A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	0:46	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	0:46	TA	462618



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH22797-RHMW01R	<b>Lab Sample ID:</b>	2112332-007A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		<b>26.9</b>		%	12/30/21	0:46	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		<b>16.2</b>		%	12/30/21	0:46	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		<b>68.4</b>		%	12/30/21	0:46	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		<b>73.8</b>		%	12/30/21	0:46	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		<b>91.4</b>		%	12/30/21	0:46	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		<b>73.6</b>		%	12/30/21	0:46	TA	462618



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH22797-RHMW01R	<b>Lab Sample ID:</b>	2112332-007A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.042	0.11	<b>0.281</b>	x	mg/L	01/03/22	21:16	SN	462602
TPH as Motor Oil	SW8015B	1	0.13	0.45	ND		mg/L	01/03/22	21:16	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>96.7</b>		%	01/03/22	21:16	SN	462602

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly weathered diesel





### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH22797-RHMW01R	<b>Lab Sample ID:</b>	2112332-007A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.042	0.11	ND		mg/L	01/05/22	19:30	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.13	0.45	ND		mg/L	01/05/22	19:30	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>109</b>		%	01/05/22	19:30	SN	462647



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2279-RHMW01R	<b>Lab Sample ID:</b>	2112332-007B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	16.8		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2279-RHMW01R	<b>Lab Sample ID:</b>	2112332-007C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/30/21	16:16	JZ	462542
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/30/21	16:16	JZ	462542
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/30/21	16:16	JZ	462542



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2279-RHMW01R	<b>Lab Sample ID:</b>	2112332-007C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/30/21	16:16	JZ	462542
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,1,2,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	16:16	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/30/21	16:16	JZ	462542
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/30/21	16:16	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/30/21	16:16	JZ	462542
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	16:16	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	16:16	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>109</b>		%	12/30/21	16:16	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>93.7</b>		%	12/30/21	16:16	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>95.3</b>		%	12/30/21	16:16	JZ	462542



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2279-RHMW01R	<b>Lab Sample ID:</b>	2112332-007C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 11:50		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	<b>52.8</b>	x	ug/L	12/30/21	16:16	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>85.2</b>		%	12/30/21	16:16	JZ	462542

**NOTE:** x – Does not match pattern of reference Gasoline standard. Result is elevated due to contribution from heavy end hydrocarbons to the C5-C12 range quantified as Gasoline.



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/30/21	1:15	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/30/21	1:15	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/30/21	1:15	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:15	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:15	TA	462618
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		27.6		%	12/30/21	1:15	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		23.1		%	12/30/21	1:15	TA	462618



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Nitrobenzene-d5 (S)	SW8270		30 - 100		<b>74.8</b>		%	12/30/21	1:15	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		<b>72.5</b>		%	12/30/21	1:15	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		<b>89.0</b>		%	12/30/21	1:15	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		<b>70.4</b>		%	12/30/21	1:15	TA	462618





### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Naphthalene	SW8270	5	0.900	2.7	<b>7.99</b>		ug/L	01/04/22	17:06	TA	462618
2-Methylnaphthalene	SW8270	5	4.50	18	ND		ug/L	01/04/22	17:06	TA	462618
1-Methylnaphthalene	SW8270	5	2.25	18	ND		ug/L	01/04/22	17:06	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	2	0.074	0.20	<b>2.21</b>	x	mg/L	01/04/22	15:26	SN	462602
TPH as Motor Oil	SW8015B	2	0.22	0.80	ND		mg/L	01/04/22	15:26	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>92.6</b>		%	01/04/22	15:26	SN	462602

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly weathered diesel



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	2	0.074	0.20	<b>0.239</b>	x	mg/L	01/05/22	19:54	SN	462647
TPH as Motor Oil (SG)	SW8015B	2	0.22	0.80	ND		mg/L	01/05/22	19:54	SN	462647
Acceptance Limits											
Pentacosane (S)	SW8015B		40 - 129		<b>106</b>		%	01/05/22	19:54	SN	462647

**NOTE:** x - Diesel result due to unknown organics within diesel quantified range, possibly other type of fuel.



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	45.7		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Chloromethane	SW8260B	4.2	0.70	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Vinyl Chloride	SW8260B	4.2	0.87	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Bromomethane	SW8260B	4.2	0.89	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Chloroethane	SW8260B	4.2	0.48	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Trichlorofluoromethane	SW8260B	4.2	0.78	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1-Dichloroethene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Freon 113	SW8260B	4.2	1.4	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Methylene Chloride	SW8260B	4.2	0.55	4.2	ND		ug/L	12/30/21	16:46	JZ	462542
trans-1,2-Dichloroethene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
MTBE	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
tert-Butanol	SW8260B	4.2	12	21	ND		ug/L	12/30/21	16:46	JZ	462542
DIPE	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1-Dichloroethane	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
ETBE	SW8260B	4.2	0.27	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
cis-1,2-Dichloroethene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
2,2-Dichloropropane	SW8260B	4.2	0.39	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Bromochloromethane	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Chloroform	SW8260B	4.2	0.51	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Carbon Tetrachloride	SW8260B	4.2	0.66	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1,1-Trichloroethane	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1-Dichloropropene	SW8260B	4.2	0.78	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Benzene	SW8260B	4.2	0.27	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
TAME	SW8260B	4.2	0.30	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2-Dichloroethane	SW8260B	4.2	0.46	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Trichloroethylene	SW8260B	4.2	0.61	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Dibromomethane	SW8260B	4.2	0.45	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2-Dichloropropane	SW8260B	4.2	0.37	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Bromodichloromethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
cis-1,3-Dichloropropene	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Toluene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Tetrachloroethylene	SW8260B	4.2	1.00	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
trans-1,3-Dichloropropene	SW8260B	4.2	0.91	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1,2-Trichloroethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Dibromochloromethane	SW8260B	4.2	0.76	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,3-Dichloropropane	SW8260B	4.2	0.91	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2-Dibromoethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Chlorobenzene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Ethylbenzene	SW8260B	4.2	0.82	2.1	ND		ug/L	12/30/21	16:46	JZ	462542



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

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	ND		ug/L	12/30/21	16:46	JZ	462542
m,p-Xylene	SW8260B	4.2	1.7	4.2	ND		ug/L	12/30/21	16:46	JZ	462542
o-Xylene	SW8260B	4.2	0.65	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Styrene	SW8260B	4.2	0.46	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Bromoform	SW8260B	4.2	0.32	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
Isopropyl Benzene	SW8260B	4.2	0.91	2.1	<b>2.3</b>		ug/L	12/30/21	16:46	JZ	462542
n-Propylbenzene	SW8260B	4.2	1.2	2.1	<b>2.8</b>		ug/L	12/30/21	16:46	JZ	462542
Bromobenzene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,1,2,2-Tetrachloroethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
2-Chlorotoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	4.2	1.0	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2,3-Trichloropropane	SW8260B	4.2	0.61	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
4-Chlorotoluene	SW8260B	4.2	0.90	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
tert-Butylbenzene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	4.2	0.97	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
sec-Butyl Benzene	SW8260B	4.2	1.2	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
p-Isopropyltoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,3-Dichlorobenzene	SW8260B	4.2	0.70	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,4-Dichlorobenzene	SW8260B	4.2	0.74	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
n-Butylbenzene	SW8260B	4.2	1.1	2.1	<b>2.7</b>		ug/L	12/30/21	16:46	JZ	462542
1,2-Dichlorobenzene	SW8260B	4.2	0.67	2.1	ND		ug/L	12/30/21	16:46	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	4.2	3.2	8.4	ND		ug/L	12/30/21	16:46	JZ	462542
Hexachlorobutadiene	SW8260B	4.2	2.6	8.4	ND		ug/L	12/30/21	16:46	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	4.2	3.9	8.4	ND		ug/L	12/30/21	16:46	JZ	462542
Naphthalene	SW8260B	4.2	5.1	8.4	<b>140</b>		ug/L	12/30/21	16:46	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	4.2	5.1	8.4	ND		ug/L	12/30/21	16:46	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>106</b>		%	12/30/21	16:46	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>93.4</b>		%	12/30/21	16:46	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>94.3</b>		%	12/30/21	16:46	JZ	462542

**NOTE:** Reporting limits raised due to high level of end hydrocarbon compounds.



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2281-RHMW02	<b>Lab Sample ID:</b>	2112332-008C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 13:55		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	4.2	120	210	<b>604</b>	x	ug/L	12/30/21	16:46	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5	125	<b>85.8</b>		%	12/30/21	16:46	JZ	462542

**NOTE:** x – Does not match pattern of reference Gasoline standard. Result is elevated due to contribution from heavy end hydrocarbons to the C5-C12 range quantified as Gasoline.



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Pyridine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
N-Nitrosdimethylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Aniline	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Phenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Bis(2-chloroethyl) ether	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2-Chlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,3-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,4-Dichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Benzyl Alcohol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,2-Dichlorobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2-Methylphenol (o-Cresol)	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Bis(2-chloroisopropyl)ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
3-/4-Methylphenol (p-/m-Cresol)	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
N-nitroso-di-n-propylamine	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Hexachloroethane	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Nitrobenzene	SW8270	1	0.900	18	ND		ug/L	12/30/21	1:44	TA	462618
Isophorone	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2-Nitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,4-Dimethylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Benzoic Acid	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Bis(2-Chloroethoxy)methane	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,4-Dichlorophenol	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,2,4-Trichlorobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,6-Dichlorophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Naphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
4-Chloroaniline	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Hexachloro-1,3-butadiene	SW8270	1	0.450	18	ND		ug/L	12/30/21	1:44	TA	462618
4-Chloro-3-methylphenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2-Methylnaphthalene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1-Methylnaphthalene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Hexachlorocyclopentadiene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,4,6-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,4,5-Trichlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2-Chloronaphthalene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
2-Nitroaniline	SW8270	1	0.900	9.0	ND		ug/L	12/30/21	1:44	TA	462618
1,4-Dinitrobenzene	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Dimethyl phthalate	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,3-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Acenaphthylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618





## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
2,6-Dinitrotoluene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
1,2-Dinitrobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
3-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Acenaphthene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,4-Dinitrophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
4-Nitrophenol	SW8270	1	0.900	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Dibenzofuran	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
2,4-Dinitrotoluene	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,3,5,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
2,3,4,6-Tetrachlorophenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Diethylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Fluorene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
4-Chlorophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
4-Nitroaniline	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
4,6-Dinitro-2-methylphenol	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Diphenylamine	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Azobenzene	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
4-Bromophenyl phenyl ether	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Hexachlorobenzene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Pentachlorophenol	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Phenanthrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Carbazole	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Di-n-butylphthalate	SW8270	1	0.450	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benzyl butyl phthalate	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benz[a]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
3,3-Dichlorobenzidine	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Chrysene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Bis(2-Ethylhexyl)phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Di-n-octyl phthalate	SW8270	1	0.180	3.6	ND		ug/L	12/30/21	1:44	TA	462618
Benzo[b]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benzo[k]fluoranthene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benzo[a]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Indeno[1,2,3-cd]pyrene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Dibenz[a,h]anthracene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618
Benzo[g,h,i]perylene	SW8270	1	0.180	0.54	ND		ug/L	12/30/21	1:44	TA	462618



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_BNASIM	<b>Prep Batch Date/Time:</b> 12/29/21	4:17:00PM
<b>Prep Batch ID:</b> 1138070	<b>Prep Analyst:</b> NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Acceptance Limits											
2-Fluorophenol (S)	SW8270		15 - 105		31.3		%	12/30/21	1:44	TA	462618
Phenol-d6 (S)	SW8270		15 - 100		25.0		%	12/30/21	1:44	TA	462618
Nitrobenzene-d5 (S)	SW8270		30 - 100		65.0		%	12/30/21	1:44	TA	462618
2-Fluorobiphenyl (S)	SW8270		30 - 105		66.4		%	12/30/21	1:44	TA	462618
2,4,6-Tribromophenol (S)	SW8270		15 - 125		92.5		%	12/30/21	1:44	TA	462618
p-Terphenyl-d14 (S)	SW8270		30 - 125		71.9		%	12/30/21	1:44	TA	462618



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH	<b>Prep Batch Date/Time:</b> 1/3/22	9:22:00AM
<b>Prep Batch ID:</b> 1138120	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.037	0.10	<b>0.247</b>	x	mg/L	01/03/22	22:03	SN	462602
TPH as Motor Oil	SW8015B	1	0.11	0.40	<b>0.672</b>		mg/L	01/03/22	22:03	SN	462602
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		<b>97.7</b>		%	01/03/22	22:03	SN	462602

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



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009A
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 3510_TPH SG	<b>Prep Batch Date/Time:</b> 1/3/22	9:29:00AM
<b>Prep Batch ID:</b> 1138121	<b>Prep Analyst:</b>	NDUM

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel (SG)	SW8015B	1	0.037	0.10	ND		mg/L	01/05/22	20:17	SN	462647
TPH as Motor Oil (SG)	SW8015B	1	0.11	0.40	ND		mg/L	01/05/22	20:17	SN	462647
			Acceptance Limits								
Pentacosane (S)	SW8015B		40 - 129		<b>108</b>		%	01/05/22	20:17	SN	462647



### SAMPLE RESULTS

**Report prepared for:** Yvonne Parry  
 Tetra Tech Inc (HI)
 
**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009B
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> TOC-W-P	<b>Prep Batch Date/Time:</b> 1/4/22	1:26:00PM
<b>Prep Batch ID:</b> 1138204	<b>Prep Analyst:</b>	BJAY

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TOC	A5310B	1	0.40	2.0	71.7		mg/L	01/04/22	13:26	BJAY	462640



## SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Chloromethane	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Vinyl Chloride	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Bromomethane	SW8260B	1	0.21	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Chloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Trichlorofluoromethane	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1-Dichloroethene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Freon 113	SW8260B	1	0.34	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Methylene Chloride	SW8260B	1	0.13	1.0	ND		ug/L	12/30/21	17:15	JZ	462542
trans-1,2-Dichloroethene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
MTBE	SW8260B	1	0.077	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
tert-Butanol	SW8260B	1	2.9	5.0	ND		ug/L	12/30/21	17:15	JZ	462542
DIPE	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1-Dichloroethane	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
ETBE	SW8260B	1	0.064	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
cis-1,2-Dichloroethene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
2,2-Dichloropropane	SW8260B	1	0.094	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Bromochloromethane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Chloroform	SW8260B	1	0.12	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Carbon Tetrachloride	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1,1-Trichloroethane	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1-Dichloropropene	SW8260B	1	0.19	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Benzene	SW8260B	1	0.065	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
TAME	SW8260B	1	0.072	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2-Dichloroethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Trichloroethylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Dibromomethane	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2-Dichloropropane	SW8260B	1	0.089	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Bromodichloromethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
cis-1,3-Dichloropropene	SW8260B	1	0.078	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Toluene	SW8260B	1	0.14	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Tetrachloroethylene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
trans-1,3-Dichloropropene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1,2-Trichloroethane	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Dibromochloromethane	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,3-Dichloropropane	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2-Dibromoethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Chlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Ethylbenzene	SW8260B	1	0.20	0.50	ND		ug/L	12/30/21	17:15	JZ	462542



## SAMPLE RESULTS

**Report prepared for:**

Yvonne Parry  
Tetra Tech Inc (HI)

**Date/Time Received:** 12/29/21, 10:35 am

**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/30/21	11:03:00AM
<b>Prep Batch ID:</b> 1138098	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	0.087	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
m,p-Xylene	SW8260B	1	0.39	1.0	ND		ug/L	12/30/21	17:15	JZ	462542
o-Xylene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Styrene	SW8260B	1	0.11	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Bromoform	SW8260B	1	0.076	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Isopropyl Benzene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
n-Propylbenzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
Bromobenzene	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,1,1,2-Tetrachloroethane	SW8260B	1	0.079	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
2-Chlorotoluene	SW8260B	1	0.25	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,3,5-Trimethylbenzene	SW8260B	1	0.24	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2,3-Trichloropropane	SW8260B	1	0.15	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
4-Chlorotoluene	SW8260B	1	0.22	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
tert-Butylbenzene	SW8260B	1	0.26	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2,4-Trimethylbenzene	SW8260B	1	0.23	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
sec-Butyl Benzene	SW8260B	1	0.30	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
p-Isopropyltoluene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,3-Dichlorobenzene	SW8260B	1	0.17	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,4-Dichlorobenzene	SW8260B	1	0.18	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
n-Butylbenzene	SW8260B	1	0.27	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2-Dichlorobenzene	SW8260B	1	0.16	0.50	ND		ug/L	12/30/21	17:15	JZ	462542
1,2-Dibromo-3-Chloropropane	SW8260B	1	0.76	2.0	ND		ug/L	12/30/21	17:15	JZ	462542
Hexachlorobutadiene	SW8260B	1	0.62	2.0	ND		ug/L	12/30/21	17:15	JZ	462542
1,2,4-Trichlorobenzene	SW8260B	1	0.93	2.0	ND		ug/L	12/30/21	17:15	JZ	462542
Naphthalene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	17:15	JZ	462542
1,2,3-Trichlorobenzene	SW8260B	1	1.2	2.0	ND		ug/L	12/30/21	17:15	JZ	462542
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>111</b>		%	12/30/21	17:15	JZ	462542
(S) Toluene-d8	SW8260B		75.1 - 127		<b>94.2</b>		%	12/30/21	17:15	JZ	462542
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>98.6</b>		%	12/30/21	17:15	JZ	462542



### SAMPLE RESULTS

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

**Date/Time Received:** 12/29/21, 10:35 am  
**Date Reported:** 01/06/22

<b>Client Sample ID:</b>	ERH2283-RHMW03	<b>Lab Sample ID:</b>	2112332-009C
<b>Project Name/Location:</b>	HDOH Red Hill	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	103S518817512		
<b>Date/Time Sampled:</b>	12/27/21 / 16:05		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/30/21	11:30:00AM
<b>Prep Batch ID:</b> 1138099	<b>Prep Analyst:</b> JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	1	29	50	ND		ug/L	12/30/21	17:15	JZ	462542
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		<b>96.0</b>		%	12/30/21	17:15	JZ	462542





## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	PFAS-W-QSM 5.3	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138049
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	QSM 5.3 Table B-15	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462593
<b>Units:</b>	ng/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
4 2 FTS	2.7	10.0	ND		
6 2 FTS	2.4	10.0	ND		
8 2 FTS	3.1	10.0	ND		
10:2 Fluorotelomer sulfonic acid	1.4	5.00	ND		
Perfluorobutanoic acid	2.1	10.0	ND		
Perfluoropentanoic acid	1.4	10.0	ND		
Perfluorobutane sulfonic acid	3.5	10.0	ND		
Perfluorohexanoic acid	1.3	10.0	ND		
Perfluoropentane sulfonic acid	1.6	10.0	ND		
Perfluoroheptanoic acid	3.5	10.0	ND		
Perfluorohexane sulfonic acid (PFHxS)	1.9	10.0	ND		
Perfluorooctanoic acid	2.4	10.0	ND		
Perfluorononanoic acid	4.7	10.0	ND		
Perfluoroheptane sulfonic acid (PFHpS)	2.8	10.0	ND		
Perfluorooctane sulfonic acid	3.5	10.0	ND		
Perfluorodecanoic acid	4.2	10.0	ND		
Perfluorononane sulfonic acid (PFNS)	3.2	10.0	ND		
NMeFOSAA	2.4	10.0	ND		
NEtFOSAA	2.9	10.0	ND		
Perfluoroundecanoic acid	2.4	10.0	ND		
Perfluorodecane sulfonic acid (PFDS)	1.7	10.0	ND		
Perfluorododecanoic acid	1.8	5.00	ND		
Perfluorotridecanoic acid	1.3	10.0	ND		
Perfluorotetradecanoic acid	1.7	10.0	ND		
Perfluorooctanesulfonamide	2.4	10.0	ND		
Perfluorobutanesulfoamide	2.4	10.0	ND		
Gen-X	4.0	15.0	ND		
ADONA	2.4	10.0	ND		
Perfluorohexanesulfoamide	4.5	10.0	ND		
9-Cl-PF3ONS	1.6	5.00	ND		
11-Cl-PF3OUdS	1.3	5.00	ND		



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138056
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462490
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.26	0.50	ND	
Chloromethane	0.17	0.50	ND	
Vinyl Chloride	0.21	0.50	ND	
Bromomethane	0.21	0.50	ND	
Chloroethane	0.11	0.50	ND	
Trichlorofluoromethane	0.19	0.50	ND	
1,1-Dichloroethene	0.14	0.50	ND	
Freon 113	0.34	0.50	ND	
Methylene Chloride	0.13	1.0	ND	
trans-1,2-Dichloroethene	0.16	0.50	ND	
MTBE	0.077	0.50	ND	
tert-Butanol	2.9	5.0	ND	
DIPE	0.12	0.50	ND	
1,1-Dichloroethane	0.12	0.50	ND	
ETBE	0.064	0.50	ND	
cis-1,2-Dichloroethene	0.15	0.50	ND	
2,2-Dichloropropane	0.094	0.50	ND	
Bromochloromethane	0.15	0.50	ND	
Chloroform	0.12	0.50	ND	
Carbon Tetrachloride	0.16	0.50	ND	
1,1,1-Trichloroethane	0.16	0.50	ND	
1,1-Dichloropropene	0.19	0.50	ND	
Benzene	0.065	0.50	ND	
TAME	0.072	0.50	ND	
1,2-Dichloroethane	0.11	0.50	ND	
Trichloroethylene	0.15	0.50	ND	
Dibromomethane	0.11	0.50	ND	
1,2-Dichloropropane	0.089	0.50	ND	
Bromodichloromethane	0.076	0.50	ND	
cis-1,3-Dichloropropene	0.078	0.50	ND	
Toluene	0.14	0.50	ND	
Tetrachloroethylene	0.24	0.50	ND	
trans-1,3-Dichloropropene	0.22	0.50	ND	
1,1,2-Trichloroethane	0.076	0.50	ND	
Dibromochloromethane	0.18	0.50	ND	
1,3-Dichloropropane	0.22	0.50	ND	
1,2-Dibromoethane	0.079	0.50	ND	
Chlorobenzene	0.16	0.50	ND	
Ethylbenzene	0.20	0.50	ND	
1,1,1,2-Tetrachloroethane	0.087	0.50	ND	
m,p-Xylene	0.39	1.0	ND	
o-Xylene	0.15	0.50	ND	
Styrene	0.11	0.50	ND	
Bromoform	0.076	0.50	ND	
Isopropyl Benzene	0.22	0.50	ND	



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138056
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462490
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
n-Propylbenzene	0.30	0.50	ND		
Bromobenzene	0.15	0.50	ND		
1,1,2,2-Tetrachloroethane	0.079	0.50	ND		
2-Chlorotoluene	0.25	0.50	ND		
1,3,5-Trimethylbenzene	0.24	0.50	ND		
1,2,3-Trichloropropane	0.15	0.50	ND		
4-Chlorotoluene	0.22	0.50	ND		
tert-Butylbenzene	0.26	0.50	ND		
1,2,4-Trimethylbenzene	0.23	0.50	ND		
sec-Butyl Benzene	0.30	0.50	ND		
p-Isopropyltoluene	0.27	0.50	ND		
1,3-Dichlorobenzene	0.17	0.50	ND		
1,4-Dichlorobenzene	0.18	0.50	ND		
n-Butylbenzene	0.27	0.50	0.27		
1,2-Dichlorobenzene	0.16	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.76	2.0	ND		
Hexachlorobutadiene	0.62	2.0	ND		
1,2,4-Trichlorobenzene	0.93	2.0	ND		
Naphthalene	1.2	2.0	ND		
1,2,3-Trichlorobenzene	1.2	2.0	ND		
(S) Dibromofluoromethane			111		
(S) Toluene-d8			97.8		
(S) 4-Bromofluorobenzene			103		



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_BNASIM	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138070
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8270	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462618
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Pyridine	0.45	3.6	ND		
N-Nitrosodimethylamine	0.45	3.6	ND		
Aniline	0.90	3.6	ND		
Phenol	0.45	3.6	ND		
Bis(2-chloroethyl) ether	0.90	3.6	ND		
2-Chlorophenol	0.45	3.6	ND		
1,3-Dichlorobenzene	0.45	3.6	ND		
1,4-Dichlorobenzene	0.45	3.6	ND		
Benzyl Alcohol	0.90	3.6	ND		
1,2-Dichlorobenzene	0.90	3.6	ND		
2-Methylphenol (o-Cresol)	0.90	3.6	ND		
Bis(2-chloroisopropyl)ether	0.45	3.6	ND		
3-/4-Methylphenol (p-/m-Cresol)	0.45	3.6	ND		
N-nitroso-di-n-propylamine	0.90	3.6	ND		
Hexachloroethane	0.45	3.6	ND		
Nitrobenzene	0.90	18	ND		
Isophorone	0.90	3.6	ND		
2-Nitrophenol	0.45	3.6	ND		
2,4-Dimethylphenol	0.90	3.6	ND		
Benzoic Acid	0.45	3.6	ND		
Bis(2-Chloroethoxy)methane	0.90	3.6	ND		
2,4-Dichlorophenol	0.18	3.6	ND		
1,2,4-Trichlorobenzene	0.45	3.6	ND		
2,6-Dichlorophenol	0.90	3.6	ND		
Naphthalene	0.18	0.54	ND		
4-Chloroaniline	0.18	3.6	ND		
Hexachloro-1,3-butadiene	0.45	18	ND		
4-Chloro-3-methylphenol	0.90	3.6	ND		
2-Methylnaphthalene	0.90	3.6	ND		
1-Methylnaphthalene	0.45	3.6	ND		
Hexachlorocyclopentadiene	0.45	3.6	ND		
2,4,6-Trichlorophenol	0.45	3.6	ND		
2,4,5-Trichlorophenol	0.45	3.6	ND		
2-Chloronaphthalene	0.18	0.54	ND		
2-Nitroaniline	0.90	9.0	ND		
1,4-Dinitrobenzene	0.90	3.6	ND		
Dimethyl phthalate	0.90	3.6	ND		
1,3-Dinitrobenzene	0.45	3.6	ND		
Acenaphthylene	0.18	0.54	ND		
2,6-Dinitrotoluene	0.45	3.6	ND		
1,2-Dinitrobenzene	0.45	3.6	ND		
3-Nitroaniline	0.45	3.6	ND		
Acenaphthene	0.45	3.6	ND		
2,4-Dinitrophenol	0.45	3.6	ND		
4-Nitrophenol	0.90	3.6	ND		



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_BNASIM	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138070
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8270	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462618
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dibenzofuran	0.18	0.54	ND	
2,4-Dinitrotoluene	0.18	3.6	ND	
2,3,5,6-Tetrachlorophenol	0.45	3.6	ND	
2,3,4,6-Tetrachlorophenol	0.45	3.6	ND	
Diethylphthalate	0.45	3.6	ND	
Fluorene	0.45	3.6	ND	
4-Chlorophenyl phenyl ether	0.45	3.6	ND	
4-Nitroaniline	0.45	3.6	ND	
4,6-Dinitro-2-methylphenol	0.45	3.6	ND	
Diphenylamine	0.45	3.6	ND	
Azobenzene	0.45	3.6	ND	
4-Bromophenyl phenyl ether	0.45	3.6	ND	
Hexachlorobenzene	0.18	0.54	ND	
Pentachlorophenol	0.18	0.54	ND	
Phenanthrene	0.18	0.54	ND	
Anthracene	0.18	0.54	ND	
Carbazole	0.18	0.54	ND	
Di-n-butylphthalate	0.45	3.6	ND	
Fluoranthene	0.18	0.54	ND	
Benzidine	0.18	0.54	ND	
Pyrene	0.18	0.54	ND	
Benzyl butyl phthalate	0.18	0.54	ND	
Benz[a]anthracene	0.18	0.54	ND	
3,3-Dichlorobenzidine	0.18	0.54	ND	
Chrysene	0.18	0.54	ND	
Bis(2-Ethylhexyl)phthalate	0.18	3.6	ND	
Di-n-octyl phthalate	0.18	3.6	ND	
Benzo[b]fluoranthene	0.18	0.54	ND	
Benzo[k]fluoranthene	0.18	0.54	ND	
Benzo[a]pyrene	0.18	0.54	ND	
Indeno[1,2,3-cd]pyrene	0.18	0.54	ND	
Dibenz[a,h]anthracene	0.18	0.54	ND	
Benzo[g,h,i]perylene	0.18	0.54	ND	
2-Fluorophenol (S)			40.6	
Phenol-d6 (S)			22.3	
Nitrobenzene-d5 (S)			74.5	
2-Fluorobiphenyl (S)			79.5	
2,4,6-Tribromophenol (S)			101	
p-Terphenyl-d14 (S)			75.2	



### MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138083
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462490
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	29	50	ND	
(S) 4-Bromofluorobenzene			78.6	



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/30/21	<b>Prep Batch:</b>	1138098
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/30/2021	<b>Analytical Batch:</b>	462542
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.26	0.50	ND		
Chloromethane	0.17	0.50	ND		
Vinyl Chloride	0.21	0.50	ND		
Bromomethane	0.21	0.50	ND		
Chloroethane	0.11	0.50	ND		
Trichlorofluoromethane	0.19	0.50	ND		
1,1-Dichloroethene	0.14	0.50	ND		
Freon 113	0.34	0.50	ND		
Methylene Chloride	0.13	1.0	ND		
trans-1,2-Dichloroethene	0.16	0.50	ND		
MTBE	0.077	0.50	ND		
tert-Butanol	2.9	5.0	ND		
DIPE	0.12	0.50	ND		
1,1-Dichloroethane	0.12	0.50	ND		
ETBE	0.064	0.50	ND		
cis-1,2-Dichloroethene	0.15	0.50	ND		
2,2-Dichloropropane	0.094	0.50	ND		
Bromochloromethane	0.15	0.50	ND		
Chloroform	0.12	0.50	ND		
Carbon Tetrachloride	0.16	0.50	ND		
1,1,1-Trichloroethane	0.16	0.50	ND		
1,1-Dichloropropene	0.19	0.50	ND		
Benzene	0.065	0.50	ND		
TAME	0.072	0.50	ND		
1,2-Dichloroethane	0.11	0.50	ND		
Trichloroethylene	0.15	0.50	ND		
Dibromomethane	0.11	0.50	ND		
1,2-Dichloropropane	0.089	0.50	ND		
Bromodichloromethane	0.076	0.50	ND		
cis-1,3-Dichloropropene	0.078	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.24	0.50	ND		
trans-1,3-Dichloropropene	0.22	0.50	ND		
1,1,2-Trichloroethane	0.076	0.50	ND		
Dibromochloromethane	0.18	0.50	ND		
1,3-Dichloropropane	0.22	0.50	ND		
1,2-Dibromoethane	0.079	0.50	ND		
Chlorobenzene	0.16	0.50	ND		
Ethylbenzene	0.20	0.50	ND		
1,1,1,2-Tetrachloroethane	0.087	0.50	ND		
m,p-Xylene	0.39	1.0	ND		
o-Xylene	0.15	0.50	ND		
Styrene	0.11	0.50	ND		
Bromoform	0.076	0.50	ND		
Isopropyl Benzene	0.22	0.50	ND		



## MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/30/21	<b>Prep Batch:</b>	1138098
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/30/2021	<b>Analytical Batch:</b>	462542
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
n-Propylbenzene	0.30	0.50	ND		
Bromobenzene	0.15	0.50	ND		
1,1,2,2-Tetrachloroethane	0.079	0.50	ND		
2-Chlorotoluene	0.25	0.50	ND		
1,3,5-Trimethylbenzene	0.24	0.50	ND		
1,2,3-Trichloropropane	0.15	0.50	ND		
4-Chlorotoluene	0.22	0.50	ND		
tert-Butylbenzene	0.26	0.50	ND		
1,2,4-Trimethylbenzene	0.23	0.50	ND		
sec-Butyl Benzene	0.30	0.50	ND		
p-Isopropyltoluene	0.27	0.50	ND		
1,3-Dichlorobenzene	0.17	0.50	ND		
1,4-Dichlorobenzene	0.18	0.50	ND		
n-Butylbenzene	0.27	0.50	0.27		
1,2-Dichlorobenzene	0.16	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.76	2.0	ND		
Hexachlorobutadiene	0.62	2.0	ND		
1,2,4-Trichlorobenzene	0.93	2.0	ND		
Naphthalene	1.2	2.0	ND		
1,2,3-Trichlorobenzene	1.2	2.0	ND		
(S) Dibromofluoromethane			106		
(S) Toluene-d8			96.3		
(S) 4-Bromofluorobenzene			98.6		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	12/30/21	<b>Prep Batch:</b>	1138099
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/30/2021	<b>Analytical Batch:</b>	462542
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH(Gasoline)	29	50	32		
(S) 4-Bromofluorobenzene			84.3		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_TPH	<b>Prep Date:</b>	01/03/22	<b>Prep Batch:</b>	1138120
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	1/4/2022	<b>Analytical Batch:</b>	462602
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Diesel	0.037	0.10	ND		
TPH as Motor Oil	0.11	0.40	0.158		
Pentacosane (S)			111		





### MB Summary Report

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_TPH SG	<b>Prep Date:</b>	01/03/22	<b>Prep Batch:</b>	1138121
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	1/5/2022	<b>Analytical Batch:</b>	462647
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	ND	
TPH as Motor Oil (SG)	0.11	0.40	ND	
Pentacosane (S)			81.6	

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	TOC-W-P	<b>Prep Date:</b>	01/04/22	<b>Prep Batch:</b>	1138204
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	A5310B	<b>Analyzed Date:</b>	1/4/2022	<b>Analytical Batch:</b>	462640
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TOC	0.40	2.0	0.42	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	PFAS-W-QSM 5.3	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138049
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	QSM 5.3 Table B-15	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462593
<b>Units:</b>	ng/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
4 2 FTS	2.74	10.0	ND	30	90.2	92.2	2.56	70 - 130	30	
6 2 FTS	2.37	10.0	ND	30	92.8	92.9	0.359	70 - 130	30	
8 2 FTS	3.09	10.0	ND	30	105	117	10.8	70 - 130	30	
10:2 Fluorotelomer sulfonic ac	1.37	5.00	ND	30	99.8	103	2.63	70 - 130	30	
Perfluorobutanoic acid	2.14	10.0	ND	30	102	103	0.325	70 - 130	30	
Perfluoropentanoic acid	1.40	10.0	ND	30	99.6	99.6	0.000	70 - 130	30	
Perfluorobutane sulfonic acid	3.49	10.0	ND	30	87.5	87.2	0.381	70 - 130	30	
Perfluorohexanoic acid	1.29	10.0	ND	30	99.7	98.6	1.01	70 - 130	30	
Perfluoropentane sulfonoic aci	1.61	10.0	ND	30	92.4	87.6	5.19	70 - 130	30	
Perfluoroheptanoic acid	3.48	10.0	ND	30	92.2	94.6	2.86	70 - 130	30	
Perfluorohexane sulfonic acid	2.91	10.0	ND	30	89.7	88.7	1.12	70 - 130	30	
Perfluorooctanoic acid	2.37	10.0	ND	30	90.7	89.8	1.11	70 - 130	30	
Perfluorononanoic acid	4.71	10.0	ND	30	95.0	95.3	0.350	70 - 130	30	
Perfluoroheptane sulfonic acid	2.75	10.0	ND	30	86.8	88.9	2.66	70 - 130	30	
Perfluorooctane sulfonic acid	3.49	10.0	ND	30	94.0	98.1	4.17	70 - 130	30	
Perfluorodecanoic acid	4.18	10.0	ND	30	95.3	92.9	2.48	70 - 130	30	
Perfluorononane sulfonic acid	3.20	10.0	ND	30	92.3	99.2	7.30	70 - 130	30	
NMeFOSAA	2.41	10.0	ND	30	98.1	98.9	1.02	70 - 130	30	
NEtFOSAA	2.90	10.0	ND	30	99.7	96.1	3.75	70 - 130	30	
Perfluoroundecanoic acid	2.37	10.0	ND	30	103	107	3.17	70 - 130	30	
Perfluorodecane sulfonic acid	1.66	10.0	ND	30	102	100	1.97	70 - 130	30	
Perfluorododecanoic acid	1.79	5.00	ND	30	90.4	89.2	1.49	70 - 130	30	
Perfluorotridecanoic acid	1.31	10.0	ND	30	104	102	2.26	70 - 130	30	
Perfluorotetradecanoic acid	1.74	10.0	ND	30	96.6	94.7	2.09	70 - 130	30	
Perfluorooctanesulfonamide	2.36	10.0	ND	30	103	97.6	5.32	70 - 130	30	
Perfluorobutanesulfoamide	2.36	10.0	ND	30	99.5	99.5	0.000	70 - 130	30	
Gen-X	3.95	15.0	ND	30	92.2	92.0	0.362	70 - 130	30	
ADONA	2.44	10.0	ND	30	93.3	93.8	0.357	70 - 130	30	
Perfluorohexanesulfoamide	4.50	10.0	ND	30	94.8	104	9.08	70 - 130	30	
9-CI-PF3ONS	1.55	5.00	ND	30	96.8	94.1	2.80	70 - 130	30	
11-CI-PF3OUdS	1.32	5.00	ND	30	92.4	93.7	1.43	70 - 130	30	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138056
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462490
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.9	97.0	101	3.97	61.4 - 129	30	
Benzene	0.16	0.50	ND	17.9	107	115	7.07	66.9 - 140	30	
Trichloroethylene	0.15	0.50	ND	17.9	101	105	4.35	69.3 - 144	30	
Toluene	0.14	0.50	ND	17.9	110	114	3.49	76.6 - 123	30	
Chlorobenzene	0.16	0.50	ND	17.9	104	111	6.25	73.9 - 137	30	
(S) Dibromofluoromethane				17.9	106	109		61.2 - 131		
(S) Toluene-d8				17.9	106	110		75.1 - 127		
(S) 4-Bromofluorobenzene				17.9	99.4	104		64.1 - 120		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_BNASIM	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138070
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8270	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462618
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Phenol	0.45	3.6	ND	2.000	23.0	25.6	10.5	15 - 95	30	
2-Chlorophenol	0.45	3.6	ND	2.000	54.1	61.5	13.0	15 - 105	30	
1,4-Dichlorobenzene	0.45	3.6	ND	2.000	57.7	55.4	3.54	35 - 105	30	
N-nitroso-di-n-propylamine	0.90	3.6	ND	2.000	80.2	78.8	1.26	40 - 115	30	
1,2,4-Trichlorobenzene	0.45	3.6	ND	2.000	65.1	62.5	3.92	45 - 110	30	
4-Chloro-3-methylphenol	0.90	3.6	ND	2.000	65.5	71.5	8.76	15 - 110	30	
Acenaphthene	0.18	0.54	ND	2.000	74.8	72.2	10.5	45 - 110	30	
4-Nitrophenol	0.90	3.6	ND	2.000	72.1	80.5	11.1	15 - 140	30	
2,4-Dinitrotoluene	0.18	0.54	ND	2.000	82.4	82.1	0.608	40 - 115	30	
Pentachlorophenol	0.18	0.54	ND	2.000	108	115	5.84	15 - 120	30	
Pyrene	0.18	0.54	ND	2.000	81.5	82.2	0.612	45 - 125	30	
2-Fluorophenol (S)				1111	38.4	43.0		15 - 105		
Phenol-d6 (S)				1111	22.4	25.1		15 - 100		
Nitrobenzene-d5 (S)				555.6	76.6	74.2		30 - 100		
2-Fluorobiphenyl (S)				555.6	81.5	77.2		30 - 105		
2,4,6-Tribromophenol (S)				1111	105	110		15 - 125		
p-Terphenyl-d14 (S)				555.6	76.1	76.3		30 - 125		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	12/29/21	<b>Prep Batch:</b>	1138083
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/29/2021	<b>Analytical Batch:</b>	462490
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	29	50	ND	238	88.2	98.1	10.8	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.9	86.1	94.7		41.5 - 125		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/30/21	<b>Prep Batch:</b>	1138098
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/30/2021	<b>Analytical Batch:</b>	462542
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.9	101	101	0.000	61.4 - 129	30	
Benzene	0.16	0.50	ND	17.9	113	114	0.494	66.9 - 140	30	
Trichloroethylene	0.15	0.50	ND	17.9	102	109	6.90	69.3 - 144	30	
Toluene	0.14	0.50	ND	17.9	115	115	0.487	76.6 - 123	30	
Chlorobenzene	0.16	0.50	ND	17.9	107	112	4.08	73.9 - 137	30	
(S) Dibromofluoromethane				17.9	110	109		61.2 - 131		
(S) Toluene-d8				17.9	109	114		75.1 - 127		
(S) 4-Bromofluorobenzene				17.9	104	102		64.1 - 120		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	12/30/21	<b>Prep Batch:</b>	1138099
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/30/2021	<b>Analytical Batch:</b>	462542
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	29	50	32	238	101	88.6	13.3	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.9	91.1	81.0		41.5 - 125		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_TPH	<b>Prep Date:</b>	01/03/22	<b>Prep Batch:</b>	1138120
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	1/4/2022	<b>Analytical Batch:</b>	462602
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.037	0.10	ND	1.0	92.7	92.9	0.216	52 - 115	30	
Pentacosane (S)				200	98.9	103		59 - 129		

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	3510_TPH SG	<b>Prep Date:</b>	01/03/22	<b>Prep Batch:</b>	1138121
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	1/5/2022	<b>Analytical Batch:</b>	462647
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.037	0.10	ND	1.0	82.4	65.6	22.7	42 - 115	30	
TPH as Motor Oil (SG)			ND	200				40 - 129		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112332	<b>Prep Method:</b>	TOC-W-P	<b>Prep Date:</b>	01/04/22	<b>Prep Batch:</b>	1138204
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	A5310B	<b>Analyzed Date:</b>	1/4/2022	<b>Analytical Batch:</b>	462640
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TOC	0.40	2.0	0.42	10	95.9	96.7	0.831	80 - 120	20	



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m3</b> , <b>mg/m3</b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

### LABORATORY QUALIFIERS:

<b>B</b> - Indicates when the analyte is found in the associated method or preparation blank
<b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample
<b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
<b>H</b> - Indicates that the recommended holding time for the analyte or compound has been exceeded
<b>J</b> - Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
<b>NA</b> - Not Analyzed
<b>N/A</b> - Not Applicable
<b>ND</b> - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
<b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
<b>R</b> - The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
<b>S</b> - Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
<b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.



## Sample Receipt Checklist

Client Name: Tetra Tech Inc (HI)

Date and Time Received: 12/29/2021 10:35:00AM

Project Name: HDOH Red Hill

Received By: Katherene Evans

Work Order No.: 2112332

Physically Logged By: Katherene Evans

Checklist Completed By: Katherene Evans

Carrier Name: FedEx

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes      Temperature: 3.0 °C  
Water-VOA vials have zero headspace? Yes  
Water-pH acceptable upon receipt? Yes

pH Checked by: na

pH Adjusted by: na

### Comments:



## Login Summary Report

**Client ID:** TL5162      Tetra Tech Inc (HI)  
**Project Name:** HDOH Red Hill  
**Project # :** 103S518817512  
**Report Due Date:** 1/6/2022

**QC Level:** II  
**TAT Requested:** 5+ day:5  
**Date Received:** 12/29/2021  
**Time Received:** 10:35 am

**Comments:**  
**Work Order # :** 2112332

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2112332-001A	ERH2287-RHMW2254-0 1 (bail)	12/27/21 9:07	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
<b>Sample Note:</b>	SVOCs by SIM and TPH d/mo w/& w/o silica gel cu. Hold time expires 1/3/22							
2112332-001B	ERH2287-RHMW2254-0 1 (bail)	12/27/21 9:07	Water	02/10/22			TOC_5310B	
<b>Sample Note:</b>	1 VOA/sample							
2112332-001C	ERH2287-RHMW2254-0 1 (bail)	12/27/21 9:07	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
<b>Sample Note:</b>	2 VOAs per sample							
2112332-001D	ERH2287-RHMW2254-0 1 (bail)	12/27/21 9:07	Water	02/10/22			Sub_RSK-175	Yes
2112332-001E	ERH2287-RHMW2254-0 1 (bail)	12/27/21 9:07	Water	02/10/22			PFAS_W_31	
<b>Sample Note:</b>								
2112332-002A	ERH2289-RHMW2254-0 1 (LF)	12/27/21 11:10	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-002B	ERH2289-RHMW2254-0 1 (LF)	12/27/21 11:10	Water	02/10/22			TOC_5310B	
2112332-002C	ERH2289-RHMW2254-0 1 (LF)	12/27/21 11:10	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-002D	ERH2289-RHMW2254-0 1 (LF)	12/27/21 11:10	Water	02/10/22			Sub_RSK-175	Yes
2112332-003A	ERH2291-Sump Adit 3	12/27/21 12:45	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	





## Login Summary Report

**Client ID:** TL5162      Tetra Tech Inc (HI)  
**Project Name:** HDOH Red Hill  
**Project # :** 103S518817512  
**Report Due Date:** 1/6/2022

**QC Level:** II  
**TAT Requested:** 5+ day:5  
**Date Received:** 12/29/2021  
**Time Received:** 10:35 am

**Comments:**  
**Work Order # :** **2112332**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2112332-003B	ERH2291-Sump Adit 3	12/27/21 12:45	Water	02/10/22			TOC_5310B	
2112332-003C	ERH2291-Sump Adit 3	12/27/21 12:45	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-003D	ERH2291-Sump Adit 3	12/27/21 12:45	Water	02/10/22			Sub_RSK-175	Yes
2112332-004A	ERH2293-OWDFMW01	12/27/21 15:10	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-004B	ERH2293-OWDFMW01	12/27/21 15:10	Water	02/10/22			TOC_5310B	
2112332-004C	ERH2293-OWDFMW01	12/27/21 15:10	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-004D	ERH2293-OWDFMW01	12/27/21 15:10	Water	02/10/22			Sub_RSK-175	Yes
2112332-005A	ERH2276-RHMW14 (Zone 03)	12/27/21 11:00	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-005B	ERH2276-RHMW14 (Zone 03)	12/27/21 11:00	Water	02/10/22			TOC_5310B	
2112332-005C	ERH2276-RHMW14 (Zone 03)	12/27/21 11:00	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-005D	ERH2276-RHMW14 (Zone 03)	12/27/21 11:00	Water	02/10/22			Sub_RSK-175	Yes
2112332-006A	ERH2285-RHMW05	12/27/21 9:25	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-006B	ERH2285-RHMW05	12/27/21 9:25	Water	02/10/22			TOC_5310B	
2112332-006C	ERH2285-RHMW05	12/27/21 9:25	Water	02/10/22			VOC_W_8260B VOC_W_GRO	



## Login Summary Report

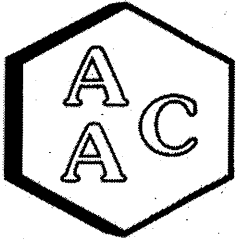
**Client ID:** TL5162      Tetra Tech Inc (HI)  
**Project Name:** HDOH Red Hill  
**Project # :** 103S518817512  
**Report Due Date:** 1/6/2022

**QC Level:** II  
**TAT Requested:** 5+ day:5  
**Date Received:** 12/29/2021  
**Time Received:** 10:35 am

**Comments:**  
**Work Order # :** **2112332**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2112332-006D	ERH2285-RHMW05	12/27/21 9:25	Water	02/10/22			Sub_RSK-175	Yes
2112332-007A	ERH22797-RHMW01R	12/27/21 11:50	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-007B	ERH2279-RHMW01R	12/27/21 11:50	Water	02/10/22			TOC_5310B	
2112332-007C	ERH2279-RHMW01R	12/27/21 11:50	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-007D	ERH2279-RHMW01R	12/27/21 11:50	Water	02/10/22			Sub_RSK-175	Yes
2112332-008A	ERH2281-RHMW02	12/27/21 13:55	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-008B	ERH2281-RHMW02	12/27/21 13:55	Water	02/10/22			TOC_5310B	
2112332-008C	ERH2281-RHMW02	12/27/21 13:55	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-008D	ERH2281-RHMW02	12/27/21 13:55	Water	02/10/22			Sub_RSK-175	Yes
2112332-009A	ERH2283-RHMW03	12/27/21 16:05	Water	02/10/22			SVOC_W_SIMFull TPHDOSG_W_8015B TPHDO_W_8015B(M)	
2112332-009B	ERH2283-RHMW03	12/27/21 16:05	Water	02/10/22			TOC_5310B	
2112332-009C	ERH2283-RHMW03	12/27/21 16:05	Water	02/10/22			VOC_W_8260B VOC_W_GRO	
2112332-009D	ERH2283-RHMW03	12/27/21 16:05	Water	02/10/22			Sub_RSK-175	Yes





## Atmospheric Analysis & Consulting, Inc.

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CLIENT : Torrent Laboratory, Inc.  
PROJECT NO. : CoC211229001  
AAC PROJECT NO. : 220021  
REPORT DATE : 01/12/2022

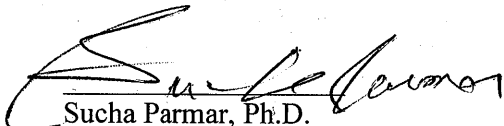
On January 4<sup>th</sup>, 2022, Atmospheric Analysis & Consulting, Inc. received nine (9) liquid samples for dissolved Methane analysis by EPA RSK-175. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab No.
2112332-001D	220021-26921
2112332-002D	220021-26922
2112332-003D	220021-26923
2112332-004D	220021-26924
2112332-005D	220021-26925
2112332-006D	220021-26926
2112332-007D	220021-26927
2112332-008D	220021-26928
2112332-009D	220021-26929

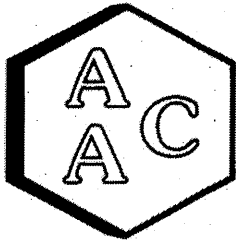
This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at [www.aaclab.com](http://www.aaclab.com).

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Technical Director or his/her designee, as verified by the following signature, has authorized release of the data.

If you have any questions or require further explanation of data results, please contact the undersigned.

  
Sucha Parmar, Ph.D.  
Technical Director

This report consists of 6 pages.



# Atmospheric Analysis & Consulting, Inc.

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## Laboratory Analysis Report

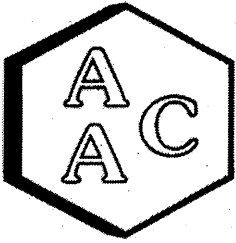
Client : Torrent Laboratory, Inc.  
AAC Project No. : 220021  
Matrix : Liquid  
Units : ug/ml

Sampling Date : 12/27/2021  
Receiving Date : 01/04/2022  
Analysis Date : 01/05/2022  
Report Date : 01/12/2022

### EPA RSK-175

Client Sample ID	2112332-001D	2112332-002D	2112332-003D	Sample Reporting Limit
AAC ID	220021-26921	220021-26922	220021-26923	
Analyte	Result	Result	Result	
Methane	0.00117	0.00147	0.00416	0.00011

All samples were blank corrected for Methane using the Method Blank value.



# Atmospheric Analysis & Consulting, Inc.

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## Laboratory Analysis Report

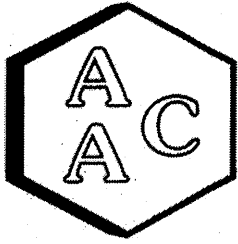
Client : Torrent Laboratory, Inc.  
AAC Project No. : 220021  
Matrix : Liquid  
Units : ug/ml

Sampling Date : 12/27/2021  
Receiving Date : 01/04/2022  
Analysis Date : 01/05/2022  
Report Date : 01/12/2022

### EPA RSK-175

Client Sample ID	2112332-004D	2112332-005D	2112332-006D	Sample Reporting Limit
AAC ID	220021-26924	220021-26925	220021-26926	
Analyte	Result	Result	Result	
Methane	<SRL	<SRL	<SRL	0.00011

All samples were blank corrected for Methane using the Method Blank value.



# Atmospheric Analysis & Consulting, Inc.

## Laboratory Analysis Report

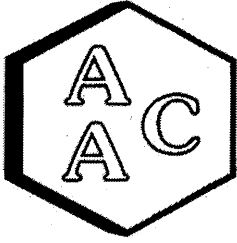
Client : Torrent Laboratory, Inc.  
AAC Project No. : 220021  
Matrix : Liquid  
Units : ug/ml

Sampling Date : 12/27/2021  
Receiving Date : 01/04/2022  
Analysis Date : 01/05/2022  
Report Date : 01/12/2022

### EPA RSK-175

Client Sample ID	2112332-007D	2112332-008D	2112332-009D	Sample Reporting Limit
AAC ID	220021-26927	220021-26928	220021-26929	
Analyte	Result	Result	Result	
Methane	0.56622	3.394	<SRL	0.00011

All samples were blank corrected for Methane using the Method Blank value.



# Atmospheric Analysis & Consulting, Inc.

## Quality Control/Quality Assurance Report

Date Analyzed : 01/05/2022  
 Analyst : DL/MR  
 Units : ppmv

Instrument ID : FID #3  
 Calb Date : 12/06/21  
 Reporting Limit : 0.5 ppmv

### I - Opening Continuing Calibration Verification - EPA RSK-175

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	98.9	99.1	98.7	98.1	98.1	99.7
	Result	92.5	90.0	90.4	91.8	90.2	90.0
	% Rec *	93.5	90.8	91.6	93.6	91.9	90.2

### II - Instrument Blank - EPA RSK-175

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
MB	Concentration	ND	ND	ND	ND	ND	ND

### III - Laboratory Control Spike & Duplicate - EPA RSK-175

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
Lab Control Standards	Sample Conc	0.0	0.0	0.0	0.0	0.0	0.0
	Spike Conc	98.9	99.1	98.7	98.1	98.1	99.7
	LCS Result	88.1	86.6	86.6	88.4	86.8	86.4
	LCSD Result	92.3	91.2	90.1	92.5	91.3	91.0
	LCS % Rec *	89.1	87.3	87.8	90.2	88.4	86.6
	LCSD % Rec *	93.3	92.0	91.3	94.3	93.1	91.3
	% RPD ***	4.6	5.2	4.0	4.5	5.1	5.2

### IV - Sample & Sample Duplicate - EPA RSK-175

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
212340-26397	Sample	0.0	0.0	0.0	0.0	0.0	0.0
	Sample Dup	0.0	0.0	0.0	0.0	0.0	0.0
	Mean	0.0	0.0	0.0	0.0	0.0	0.0
	% RPD ***	0.0	0.0	0.0	0.0	0.0	0.0

### V - Closing Continuing Calibration Verification - EPA RSK-175

AAC ID	Analyte	Methane	Ethane	Propane	Butane	Pentane	Hexane
CCV	Spike Conc	98.9	99.1	98.7	98.1	98.1	99.7
	Result	90.4	89.4	89.5	91.8	90.9	92.8
	% Rec *	91.5	90.2	90.6	93.6	92.6	93.0

\* Must be 85-115%

\*\* Must be 75-125%

\*\*\* Must be < 25%

ND = Not Detected

<RL = less than Reporting Limit





483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

220021

# CHAIN OF CUSTODY

LAB WORK ORDER NO  
 CoC211229001

Company Name: **Torrent Laboratory, Inc.**  
 Address: **483 Sinclair Frontage Road**  
 City: **Milpitas** State: **CA**  
 Telephone: **408.263.5258** FAX: **408.263.8293**  
 Contact: **Kathie Evans**  
 Contact Email: **pm@torrentlaboratory.com**

Company Name: **Atmospheric Analysis and Consultants, Inc**  
 Address: **2225 Sperry Ave**  
 City: **Ventura** State: **California** Zip Code: **93003**  
 Telephone: **805-650-1642** FAX:  
 Contact Name: **Sample receiving**  
 Special Instructions/Comments: **Pls analyze for Methane by RSK175 on a standard 10 day TAT. Note last day of 14 day hold time is 1/10/22. Thanks and Happy New Year!**  
 P.O. #: **2112332** EMAIL :

**TURNAROUND TIME:**  
 10 Work Days  
 7 Work Days  
 5 Work Days  
 3 Work Days  
 2 Work Days  
 1 Work Days  
 Noon-Nxt Day  
 2 - 8 Hours  
 Other

**SAMPLE TYPE:**  
 Water

**REPORT FORMAT:**  
 QC Level IV  
 EDF  
 Excel/EDD

Sub\_RSK-175  
*Methane*

**ANALYSIS REQUESTED**

LAB ID	CLIENT'S SAMPLE I.D.	DATE/TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS
26921	2112332-001D	12/27/2021/9:07	Water	2	Incl VOA	
26922	2112332-002D	12/27/2021/1:10	Water	2		
26923	2112332-003D	12/27/2021/12:45	Water	2		
26924	2112332-004D	12/27/2021/9:07	Water	2		
26925	2112332-005D	12/27/2021/1:00	Water	2		
26926	2112332-006D	12/27/2021/9:25	Water	2		
26927	2112332-007D	12/27/2021/1:50	Water	2		
26928	2112332-008D	12/27/2021/13:55	Water	2		
26929	2112332-009D	12/27/2021/16:05	Water	2		

**1 Relinquished By:** *[Signature]* **Print:** *[Signature]* **Date:** *1/3/22* **Time:** *1600*  
**2 Relinquished By:** *[Signature]* **Print:** *[Signature]* **Date:** *1/9/22* **Time:** *1039*

9.3% T<sub>10</sub>