

## DATA VALIDATION CHECKLIST – STAGE 2A

<b>Site Name</b>	Joint Base Pearl Harbor - Hickam	<b>Project Name</b>	Red Hill Incident
<b>Data Reviewer (signature and date)</b>	 1/29/2022	<b>Technical Reviewer (signature and date)</b>	 2/22/2022
<b>Laboratory Report No.</b>	980431	<b>Laboratory</b>	Eurofins Eaton Analytical, LLC and ASSET Laboratories
<b>Analyses</b>	Extractable C8-C44 by EPA 8015B (modified) including GRO, DRO, and ORO		
<b>Sample and Matrix</b>	One water sample (010922-21-03)		
<b>Field Duplicate Pairs</b>	None		
<b>Field Blanks</b>	None		

### INTRODUCTION

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

### OVERALL EVALUATION

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

#### Data completeness:

Within Criteria	Exceedance/Notes
Y	TPH-diesel and TPH-motor oil by EPA 8015 are requested on the chain-of-custody (COC) form. The laboratory analyzed the sample by EPA 8015B modified for C8-C44 with GRO (extractable-range only), DRO, and ORO.

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### Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
N	All sample containers were received intact and with proper COC documentation. The cooler temperature and sample preservation (as applicable) were verified upon receipt of the samples, and the cooler temperature exceeded the acceptance criteria; therefore, the sample results were qualified as estimated (flagged J/UJ). No custody seals were present on sample or shipping containers, but no qualifications were applied for this field oversight.

### Method blanks:

Within Criteria	Exceedance/Notes
Y	

### Field blanks:

Within Criteria	Exceedance/Notes
NA	

### System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	Only surrogate compound p-terphenyl was used for system monitoring. The percent recovery is in control.

### MS/MSD:

Within Criteria	Exceedance/Notes
NA	No MS/MSD results are provided in the laboratory report.

### Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	No laboratory duplicate results are provided in the laboratory report.

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### Field duplicates:

Within Criteria	Exceedance/Notes
NA	

### LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	The LCS and LCSD were only spiked with DRO. No qualifications were applied because the DRO percent recovery is within control limits and the DRO carbon range C10-C28 represents the extractable hydrocarbon range, but the data user should be aware that the LCS and LCSD did not include the requested hydrocarbon range C8-C44.

### Sample dilutions:

Within Criteria	Exceedance/Notes
Y	Sample 010922-21-03 was analyzed undiluted.

### Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

### MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the MRL and MDL (if present) were qualified as estimated (flagged J) by the laboratory.

### Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

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Other [none]:

Within Criteria	Exceedance/Notes
NA	

### Overall Qualifications:

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

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

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Laboratory Data

Report: 980431  
 Project: RED-HILL-INCIDENT  
 Group: RUSH TPH 8015 - (Extractable  
 GRO-DRO-ORO-Response Sampling)

State of Hawaii DOH  
 Melvin Tokuda  
 2385 Waimano Home Road  
 Pearl City, HI 96782

Samples Received on:  
 01/13/2022 0948

Prepared	Analyzed	Prep Batch	Analyzed Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
<b>010922-21-03 (202201140040)</b>						<b>Sampled on 01/09/2022 1700</b>				
<b>EPA 8015 - 8015 C8-C44</b>										
	01/14/22 01:27			(EPA 8015)	C11-C12	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C13-C14	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C15-C16	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C17-C18	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C19-C20	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C21-C22	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C23-C24	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C25-C26	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C29-C32	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C33-C36	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C37-C40	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C41-C44	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C8	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	C8-C44	110 J	ug/L	33	50	1
	01/14/22 01:27			(EPA 8015)	C9-C10	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	Diesel Range Organics (DRO) -C10-C28	36J J	ug/L	33	50	1
	01/14/22 01:27			(EPA 8015)	Gas Range Organics C8-C10	ND	ug/L	33	50 UJ	1
	01/14/22 01:27			(EPA 8015)	Oil Range Organics (C28-C40)	40J (J) J	ug/L	33	50	1

Maura McAleese 1/29/2022

Rounding on totals after summation.

ND - Analyte was not detected at the calculated MDL.

J - The analyte was either detected at or greater than the MDL and less than the MRL, or did not meet any one of the required QC criteria.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.