

Exhaust Gas Scrubber Washwater Test Report

Vessel: Test Vessel (IMO#####)
Vessel Manager: TEST MANAGER

Place Collected	Fujairah OPL	Sample No.s	***** to *****
Date Collected	*****	Report No.	TC/LR/*****
Time Collected	*****	Source/Sample(s)	<u>Test Vessel</u>
Sampled by	Chief Engineer	Received From	
ECGS Type	Name	Date Received in	*****
ECGS Make	*****	Lab	
ECGS Model	*****	Date Reported	*****
		AWB	*****
		Reasoning	2013 VGP Monitoring, MEPC 259/68

Introduction: Explaining Sampling and Transportation Conditions

The above sample(s) was/were examined as detailed below and the following results obtained.

Exhaust gas scrubber inlet water (Sample No*****)

Field Testing (by Chief Engineer)

TEST	METHOD	UNIT	RESULT
pH	SM 4500-H B	-	***
Total Residual Chlorine (to determine preservatives)	SM 4500-Cl G	mg/L	****

Laboratory Testing

Analytical Group	Specific Compound	Method	Unit	Result
Dissolved Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Total Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthylene	EPA-8270c	µg/L	***
	Acenaphthene	EPA-8270c	µg/L	****
	Anthracene	EPA-8270c	µg/L	****
	Benzo[a]anthracene	EPA-8270c	µg/L	****
	Benzo[ghi]perylene	EPA-8270c	µg/L	****
	Benzo[a]pyrene	EPA-8270c	µg/L	****
	Benzo[b]fluoranthene	EPA-8270c	µg/L	****
	Benzo[k]fluoranthene	EPA-8270c	µg/L	****
	Chrysene	EPA-8270c	µg/L	****
	Dibenz[a,h]anthracene	EPA-8270c	µg/L	****
	Fluoranthene	EPA-8270c	µg/L	****
	Fluorene	EPA-8270c	µg/L	****
	Naphthalene	EPA-8270c	µg/L	***
	Phenanthrene	EPA-8270c	µg/L	****
Pyrene	EPA-8270c	µg/L	****	
Anions	Nitrite	EPA 353.2	mg/L	****
	Nitrate	EPA 353.2	mg/L	****

Before treatment water leaving the scrubber (Sample No***)**

Field Testing (by Chief Engineer)

TEST	METHOD	UNIT	RESULT
pH	SM 4500-H B	-	***
Total Residual Chlorine (to determine preservatives)	SM 4500-Cl G	mg/L	****

Laboratory Testing

Analytical Group	Specific Compound	Method	Unit	Result
Dissolved Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Total Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthylene	EPA-8270c	µg/L	***
	Acenaphthene	EPA-8270c	µg/L	****
	Anthracene	EPA-8270c	µg/L	****
	Benz[a]anthracene	EPA-8270c	µg/L	****
	Benzo[ghi]perylene	EPA-8270c	µg/L	****
	Benzo[a]pyrene	EPA-8270c	µg/L	****
	Benzo[b]fluoranthene	EPA-8270c	µg/L	****
	Benzo[k]fluoranthene	EPA-8270c	µg/L	****
	Chrysene	EPA-8270c	µg/L	****
	Dibenz[a,h]anthracene	EPA-8270c	µg/L	****
	Fluoranthene	EPA-8270c	µg/L	****
	Fluorene	EPA-8270c	µg/L	****
	Naphthalene	EPA-8270c	µg/L	***
	Phenanthrene	EPA-8270c	µg/L	****
Pyrene	EPA-8270c	µg/L	****	
Anions	Nitrite	EPA 353.2	mg/L	****
	Nitrate	EPA 353.2	mg/L	****

After Treatment Discharge Water (Sample No***)**
Field Testing (by Chief Engineer)

TEST	METHOD	UNIT	RESULT
pH	SM 4500-H B	-	***
Total Residual Chlorine (to determine preservatives)	SM 4500-Cl G	mg/L	****

Laboratory Testing

Analytical Group	Specific Compound	Method	Unit	Result
Dissolved Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Total Metals	Arsenic	EPA 200.8	µg/L	***
	Cadmium	EPA 200.8	µg/L	****
	Chromium	EPA 200.8	µg/L	****
	Copper	EPA 200.8	µg/L	****
	Lead	EPA 200.8	µg/L	****
	Nickel	EPA 200.8	µg/L	****
	Selenium	EPA 200.8	µg/L	****
	Thallium	EPA 200.8	µg/L	****
	Vanadium	EPA 200.8	µg/L	****
	Zinc	EPA 200.8	µg/L	****
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthylene	EPA-8270c	µg/L	***
	Acenaphthene	EPA-8270c	µg/L	****
	Anthracene	EPA-8270c	µg/L	****
	Benz[a]anthracene	EPA-8270c	µg/L	****
	Benzo[ghi]perylene	EPA-8270c	µg/L	****
	Benzo[a]pyrene	EPA-8270c	µg/L	****
	Benzo[b]fluoranthene	EPA-8270c	µg/L	****
	Benzo[k]fluoranthene	EPA-8270c	µg/L	****
	Chrysene	EPA-8270c	µg/L	****
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	Fluoranthene	EPA-8270c	µg/L	****
	Fluorene	EPA-8270c	µg/L	****
	Naphthalene	EPA-8270c	µg/L	***
	Phenanthrene	EPA-8270c	µg/L	****
Pyrene	EPA-8270c	µg/L	****	
Anions	Nitrite	EPA 353.2	mg/L	****
	Nitrate	EPA 353.2	mg/L	****

Comments: Records of monitoring must be retained onboard for at least 3 years in the vessel's recordkeeping documentation. Data may be submitted as part of the vessel's annual report (Appendix H) on the VGP Scrubber WashWater DMR.

Test Conducted On	*****	Tests Conducted by	
		Emp#	:46
Report Prepared by		Sampled by	: Customer
Emp #	:53		

The above test results are only applicable to the sample (s) referred above.

REPORTED BY

ANAND
LABORATORY MANAGER

The Test Report shall not be reproduced (except in full) without the written approval of Tribocare FZC.
Samples retention period is 90 days from the sample receipt date
The Report is generated electronically, Signature is not required

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