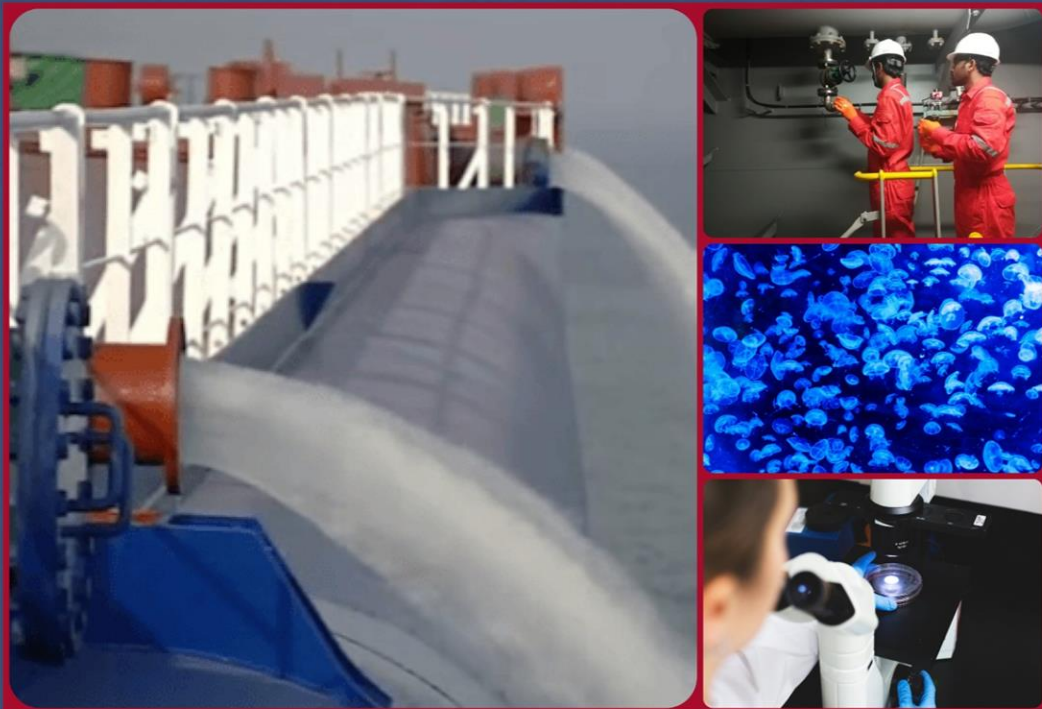




TRIBOCARE

MARINE LABORATORIES

US-EPA VGP COMPLIANCE MONITORING



BALLAST WATER TESTING
BILGE WATER ANALYSIS
SCRUBBER WASH WATER TESTING
GRAYWATER ANALYSIS

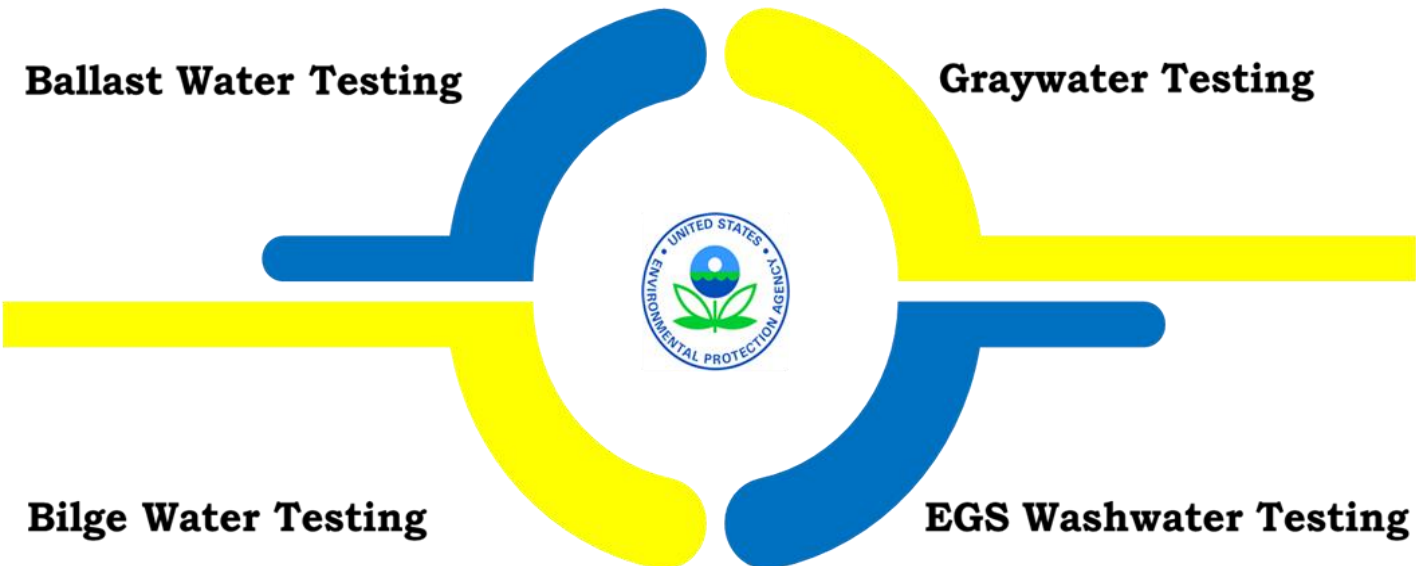


Tribocare is a well established testing organization using the latest analytical techniques to examine the quality of chemical products and waste products. Our fully-owned, 17025 certified laboratories are strategically located to meet with fast and thorough service our global clients' demands. They are established in the Sharjah emirate of the United Arab Emirates and in Singapore which are well connected to the East and West.



We offer our services worldwide, with great emphasis and experience to the marine sector. The main services we offer to the **marine industry** are Used Oil Condition Monitoring, Cylinder Condition Monitoring, Bunker Fuel Testing, Water and Wastewater Analysis.

The 2013 VGP requires targeted sampling and analytical monitoring for a subset of vessels covered by the permit and therefore we have created a turn – key service that ensures Compliance with the regulations and complete peace of Mind.



We offer sampling and testing as per EPA requirements in several ports worldwide to satisfy the needs and cover the trading patterns of our clients. In Singapore and Fujairah via our own chemists and laboratories and in the rest of the world with highly skilled and professional associates.



Consolidated Table of VGP's Analytical Requirements

| Discharge | VGP Section | Applicable Vessels | Frequency | Analytes |
|--|--------------------|---|---|---|
| Bilgewater | 2.2.2.1 | New Build > 400 gross tons that discharge bilgewater into U.S. waters | 1 per year. (waiver qualifications after 2 yr.) | Oil in water OCM reading |
| | 2.2.3.5.1.1 | All Vessels using a ballast water treatment system once they use that system | 1 per mo. | Equipment performance |
| 1 to 4 per yr., dependent on type of system, see 2.2.3.5.1.1.4 | | | Biological indicators | |
| BWTS that use active substances/ Biocides | | 3 to 5 times during first 10 discharges, 2 to 4 times per yr. dependent on type of system, see 2.2.3.5.1.1.5.2 | Biocides and residuals of treatment | |
| Graywater | 2.2.15.2 | New Build vessels with crew capacity ≥ 15 and overnight accommodations; or vessels operating on the Great Lakes that are not "commercial vessels" within the meaning of CWA section 312 | 2 per year | Biocides and residuals of treatment |
| Exhaust Gas Scrubber Washwater Discharge | 2.2.26.2 | All vessels with wet exhaust gas scrubber systems which discharge into U.S. waters | 2 for first year., 1 per year thereafter | Dissolved and total metals, PAH, nitrates-nitrite, pH |



What we have to offer?

Unlike other testing requirements for the vessels, such as Bunker Fuel or Lube Oil Sampling/Testing, VGP Monitoring present the following major difficulties:

- The majority of the analytes to be tested require specific sampling procedures, that marine crews are unfamiliar with.
- Onboard testing is required for some parameters, such as TRO.
- Samples for some parameters must be analysed within 8 hours from sampling.
- Samples must be transferred under specific conditions and preservation.

Therefore, to resolve the above issues, we offer to our clients all-inclusive, turn-key monitoring solutions for the all the aforementioned discharges and specifically:

Onboard Attendance for Sampling acc. to ETV Protocol, as well as BWMS code and Field Testing acc. To 40 CFR 136.3 methods

Sampling bottles and containers as per VGP methods' requirements.

Transportation of the samples within the required timeframes.

Transportation of the samples with the required conditions (preservatives/light/temperature conditions etc)

Lab Testing with EPA designated methods (40 CFR 136.3 methods) in Accredited Laboratories

Reporting as per EPA requirements

Guidance on Regulations – Provision of 30-page Guide

Technical Support and Customer Care

**Where we offer those services?**

We offer sampling and testing as per EPA requirements in several ports worldwide to satisfy the needs and cover the trading patterns of our clients. In Singapore and Fujairah via our own chemists and laboratories and in the rest of the world with highly skilled and professional associates.

| <u>Countries / States</u> | <u>Ports</u> |
|----------------------------------|---|
| Singapore | Port of Singapore |
| United Arab Emirates | Fujairah |
| US - Alabama | Port of Mobile |
| US - California | All Major Ports |
| US - Louisiana | All Major NOLA Ports |
| US - Maryland | Port of Baltimore |
| US - Massachusetts | Boston |
| US - New Jersey | Port of New York Complex |
| US - New York | Port of New Jersey Complex |
| US - Oregon | Tacoma, Everett |
| US - Texas | All Major Ports |
| US - Virginia | Port of Norfolk |
| US - Washington | Vancouver, Portland |
| Canada | Nova Scotia Newfoundland Montreal Victoria |
| Australia | Gladstone Newcastle Brisbane Sydney |
| Europe | Istanbul Rotterdam Algeciras |
| Panama | Panama Canal Area |

* Please contact us for other ports



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