



VISWA LAB



**BUNKER QUANTITY  
SURVEYS (BQS),  
REMAINING ON BOARD (ROB)  
& SLUDGE SURVEYS (SS)**

# REMAINING ON-BOARD (ROB) SURVEY

Ship Staff keep a small quantity of bunker fuel in excess of what is declared in the log book. This is a safety margin to allow for any accidents, spillages, wrong measurement, etc. This practice can lead to ship staff storing unaccounted fuel which may be sold to the supplier barge/ sludge barge for monetary gain. This can lead to huge loss if not monitored.

- ROB surveys will gauge and measure all remaining oil onboard on all tanks of the vessel thereby the difference between the log book declared quantity and actual quantity is clearly identified.
- Very efficient software ensures there are no loose ends.
- Surveyors also provide a truthful account of happenings on ship without fear or favor.



# SLUDGE SURVEY (SS)

Certain amount of sludge is generated on every ship from purifiers, tank drains, leaky glands etc. This amount to 1.0% to 1.5% of the daily bunker consumption. Shipping companies paid a fee to sludge disposing facilities to dispose of the sludge. However, in some ports unscrupulous traders could use the sludge, extract fuel and market it for profit. They were ready to pay the ship staff for sludge and therefore there was an incentive to generate more sludge on a ship.

## METHODS USED TO DIVERT FUEL TO SLUDGE TANK

- Falsify the sludge tank soundings and declare smaller quantity to the company, that is planned to be discharged.
- Drain too much of oil from HO settling tank to sludge tank.
- Forced desludge of HO purifier.
- Force the purifier to malfunction, so that the fuel oil will flow to sludge tank.
- There were cases where companies received reports from junior ship staff with photographs, showing additional hose used from Engine room to discharge fuel directly to the sludge barge.
- Internal hose connection to divert fuel to sludge tank or sludge discharge pump suction side.

## POPULAR SLUDGE DISCHARGE PORTS:

Viswa Lab will provide alerts as to which ports have become favorite destinations for unscrupulous sludge discharge.

## HOW VISWA LAB CAN HELP

In addition to ROB surveys, Viswa Lab carries out sludge survey which includes record of sludge tanks, quantities of sludge discharged in the ports, quantities that may be in overflow tanks, bilge tanks and other hidden tanks. The quantity of sludge generated is compared to the sludge discharged to assess if there are any malpractices. A detailed report with all tank soundings is sent to the customer.

## WHERE DOES VISWA LAB PROVIDE THESE SERVICES?

Viswa Lab provides BQS, ROB and Sludge Survey Services in all the major bunker ports worldwide.

# SURVEYS FOR QUANTITY BUNKERED (BQS), REMAINING ON-BOARD (ROB) & SLUDGE SURVEYS (SS)

Can you afford not exercising vigilance on bunker quantity?

## BUNKER QUANTITY RELATED SURVEYS REQUIRE

- Certification, knowledge, experience
- Competence, integrity
- Fair (ethical) mind
- A leader in managing bunker operations and settling disputes between the supplier and receiver

## COME TO VISWA LAB

Viswa Lab is accredited to ISO 17020 by Singapore Accreditation Council for the Bunker Quantity Survey Activity.

**NOTE:** Some suppliers in Singapore may not want Viswa Lab as the surveyor or they will ask for \$5 to \$8 per MT premium to accept Viswa Lab as surveyor. The reasons are obvious. In most cases, if you insist on Viswa Lab or threaten to report to MPA Singapore, the objection will disappear.

Viswa Lab Surveyors are fully trained and certified. They go through rigorous screening process for competence, integrity, fair mindedness and leadership.

- Surveyors are required to stay on the vessel through the entire period of bunkering and to take measurements before and after, for both the barge and the vessel, use their own measuring tapes and digital thermometers, thereby ruling out problems such as cappuccino bunkers, hidden fuels and quantity disputes.
- Fill in elaborate documentation and obtain signature of all parties.
- The measurements, calculations and all relevant data are entered in elaborate documentation and signed by all parties. An interim report is issued immediately.
- After the density and water are counter-checked in the lab, the full report is issued.

## TYPICAL SAVINGS ACHIEVED

- BQS - Density differences - Let us say 1000 MT was bunkered and the density as per the bunker delivery note was 990 kg/m<sup>3</sup>. The lab test density is 965 kg/m<sup>3</sup>. The loss of fuel due to the lower density supplied comes to 25MT.
- BQS - Quantity shortage - On a 1000 MT bunkering there could be as much as 60 MT shortage of supply. Such heavy loss can be prevented with a marginal Bunker Survey cost, which is equivalent to about 1 MT of bunker for each bunkering!!
- BQS - Water in fuel - if the fuel supplied has water content of 0.5% while the BDN specifies water content of 0.1%, the vessel has received 0.4% of water. On a 1000 MT stem, this comes to a 4 MT loss of fuel supplied.
- Remaining On-Board Survey - Viswa Lab ROB surveyors have found as much as 100 to 200MT excess bunkers in ship's tanks (in excess of log book record). Since this hidden quantity is not reported to the office, it is not captured in the company asset. By conducting a surprised ROB survey, a 100 MT hidden bunker could be brought in the book, improving the balance sheet.
- Sludge surveys - In many instances, Viswa Lab sludge surveys have identified excess quantity of sludge on board (more than the reported quantity to be discharged). Sometimes this has worked out to as much as 60 MT, which was good fuel drained out from settling tanks. By arranging Sludge Survey, a company could prevent a pumping out of 50 MT good fuel along with sludge.



**VISWA LAB**

Bunker Quantity Surveys

## **BUNKER QUANTITY SURVEYS (BQS), REMAINING ON-BOARD (ROB) & SLUDGE SURVEYS (SS)**

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