Sampling - A Guide to Reducing Contamination Claims

Douglas Sutherland of Associated Petroleum Consultants Ltd gives his recommendations for good sampling practice.

1. General Comment

In the 1970s and 1980s there were a large number of claims arising from claimed shortages said to have been due to contamination. After various investigations into the causes of these "losses", improved measurement techniques, procedures, and equipment were introduced. Improvements in the training and more supervision of those performing measurements occurred. As a result, claims arising from short deliveries have been significantly reduced. The most significant source of claim associated with the transport of liquid cargo is the "contamination of the cargo". This can occur on loading, during passage and/or discharge and in all instances the first indication is a supposed "loss of cargo". It is better to be "sure the ship". Sureness is achieved by receiving and recording of cargo (whether or not the cargo may be) and not unnecessarily take action against their trading partners. The easiest target is the carrier.

2. Sampling Procedures

Cargo surveyors are generally appointed by cargo interests to draw specific samples of the cargo on board during loading, after the completion of loading and prior to the start of discharge. The surveyors should use standard techniques but may not draw samples from all possible locations, depending on their instructions. These surveyors are not obliged to provide duplicate samples for the carrier of the cargo. Some samples left on board the ship at the load port are generally retained for the receivers of the cargo. The cargo is not retained for the carrier of the cargo as samples drawn on this carriage condition are considered to be submitted to the inspectors on the port. After various investigations into the causes of these "losses", improved measurement techniques, procedures, and equipment were introduced. Improvements in the training and more supervision of those performing measurements occurred. As a result, claims arising from short deliveries have been significantly reduced. The most significant source of claim associated with the transport of liquid cargo is the "contamination of the cargo". This can occur on loading, during passage and/or discharge and in all instances the first indication is a supposed "loss of cargo". It is better to be "sure the ship". Sureness is achieved by receiving and recording of cargo (whether or not the cargo may be) and not unnecessarily take action against their trading partners. The easiest target is the carrier.

3. Sampling Containers

Sample containers come in varying sizes, materials, designs and colours. The most common of these are glass, plastic and metal. The decision as to which type of sample container would be most appropriate to use will depend very much on the nature of the product being sampled and the samplers' intentions regarding analysis and storage. Each sampler has its own style and the choice of container has to be made by the sampler. It is a good idea to check with the manufacturers to ensure that the glass bottles are used for the first choice. Generally, crude oils and olefins are more suitable to metal / plastic, and products and chemicals are better in glass. In many cases failures of cargoes are for sampling through the pipe line, where the sample is taken from the tank bottom where the product itself is visual as dangerous liquid and the samples are in glass or plastic containers. B. Plastic bottles come in varying qualities, designs and sizes. These bottles are also used, but not always, accepted for transportation but are not generally suitable for long term storage. Liquids contaminated with low flash point materials should not be stored in such containers as these flammable liquids will be lost through the plastic. On the other hand there are special containers which require plastic containers. C. Glass again come in many sizes and shapes. The principal parameter to consider with glass bottles is the colour. If the product being stored is sensitive to light then brown or green bottles should be used in all instances appropriate inserts should be obtained in order to prevent leakage through the container. The inserts may be, polyethylene or PTFE. As to size of container we would suggest sample containers of 500ml or 1lt for the most appropriate. Labeled flash point contamination samples should be analysed as quickly as possible and retained from light effects through tops and plastic. However, if they are to be stored, then ideally this should be as at cold temperature as possible and the sample container should be properly retained (make sure they don't leak).

5. Conclusion

Contamination claims often result in large sums of money being at stake. Often, the cause and/or location of the contamination can be quickly identified if the appropriate sampling is done. Large claims can be avoided in outlays costs. If the claim arises in outlays costs associated with the handling of the cargo. This will include the acceptance of the claim. In the absence of a claim, the carrier will not be liable. And the easiest target is the shipowner as he is the most vulnerable. To reduce the number of claims a good start would be to introduce standard procedures in the presentation and carriage of the cargoes to the highest industry standards. Most, if not all, shipping have already introduced these standards. All that remains is the getting and retaining of the claims. Sampling and support an important part in this process. The aspect is left to the shipping and other the claimants. The guidance outlined above may not be a complete answer to all claims but they should reduce the costs and time involved in defending them. The costs associated with sampling efficiently and ultimately disposal of unwanted sample poses into insignificance given the cost of the cargoes and the value of the claims. Therefore, we would strongly suggest that samples are always drawn when a liquid cargo, as well as engine fuel, is received. This way the ship interests have a better chance to show what was actually received as opposed to simply being told was expected.