



Shell Aviation

# SHELL WATER DETECTOR

- NEW, EASY-TO-USE TUBES
- ENHANCED QUALITY ASSURANCE

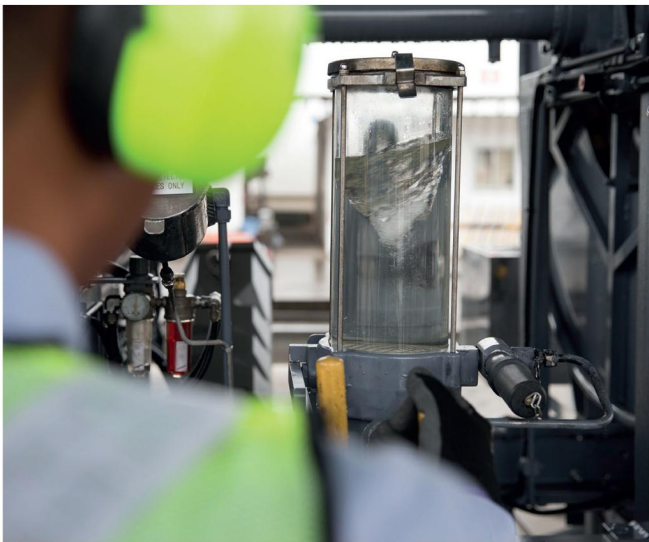


# SHELL WATER DETECTOR

## NEW, EASY-TO-USE TUBES, ENHANCED QUALITY ASSURANCE

A few years ago, an international flight touched down short of the runway because of “accreted ice from within the fuel system”. With lives at stake, no reputable operator would risk compromising on the quality of its water testing kits.

The **SHELL WATER DETECTOR** is manufactured following strict quality assurance standards in a purpose-built, humidity-controlled facility. The manufacturer has ISO 9001:2008 accreditation for quality management, which covers manufacture, assembly, packaging and supply. The Shell Water Detector is proven and now comes in easier-to-use packaging, which is designed to enhance product quality assurance even further.



### TRUSTED WORLDWIDE

For over 50 years, operators across the world have relied on the Shell Water Detector to check their aviation fuel for suspended water that cannot be detected by visual inspections. The detector capsules are widely used, thanks to their effectiveness and simplicity.

Imitations are available, but, for quality you can trust, we recommend using the original, internationally recognised, industry standard that is the Shell Water Detector.



### NEW LOOK BOXES

Each new-look box contains the same number of capsules (80), but there are now 8 tubes with 10 capsules per tube: previously, 8 capsules in 10 tubes. This change is permitted by the replacement of a desiccant sachet with a coating and reduces packaging waste.



**American Petroleum Services, LLC** is the exclusive distributor for the Shell Water Detector Kit for the U.S., Caribbean, Central America, and South America.

 [www.apsaviation.com](http://www.apsaviation.com)  (305) 477-8677

WE UNDERSTAND THE IMPORTANCE OF SAMPLING EFFICIENTLY WHILE WEARING THE CORRECT PERSONAL PROTECTIVE EQUIPMENT, WHICH IS WHY OUR NEW **SHELL WATER DETECTOR** TUBES HAVE FLIP CAPS.

### NEW, EASIER-TO-USE PACKAGING

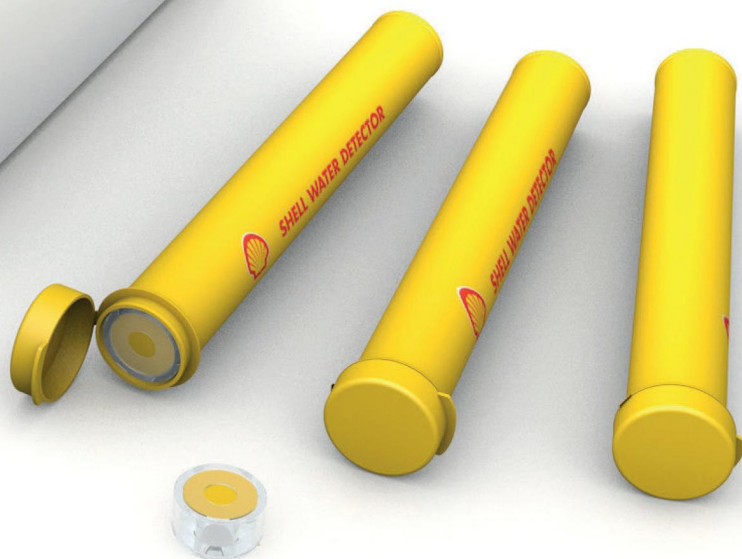
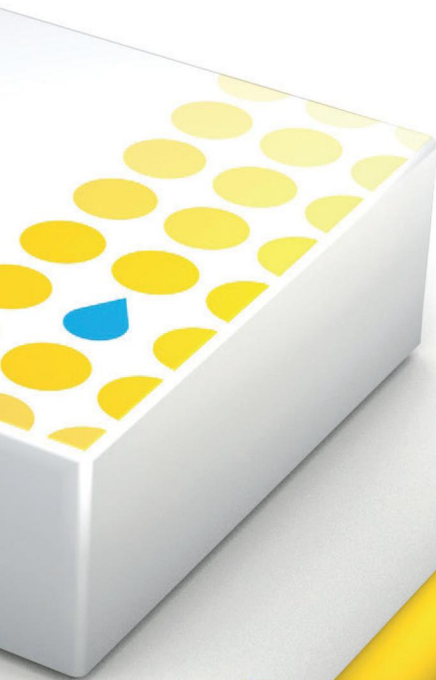
Screw-top tubes can be difficult to use, especially when wearing gloves. We understand the importance of sampling efficiently while wearing the correct personal protective equipment, which is why our new Shell Water Detector tubes have flip caps. These are easy to open and seal with one hand while wearing gloves.

We also recommend using reverse-action syringes, which draw samples in when the plunger is pushed – an action that can be performed easily using one hand.

### ENHANCED PRODUCT QUALITY ASSURANCE

You need to be confident that each capsule is ready to use.

- The Shell Water Detector kits continue to be manufactured to high quality standards.
- The new desiccant-coated tubes are medical-grade quality, which helps to ensure that the capsules remain protected during the rigors of use.
- The new tubes help to ensure that the remaining capsules are protected from moisture, through
  - simple flip tops, which are easier to seal from the air
  - an all-over desiccant coating, which has replaced the desiccant sachet placed at one end of the tube. This improves the protection of the capsules against ambient moisture, especially in humid locations.



**SHELL WATER DETECTOR** TUBES HAVE FLIP CAPS. THESE ARE EASY TO OPEN AND SEAL WITH ONE HAND WHILE WEARING GLOVES.

AST Aviation Ground Support Equipment

Shell Aviation



# SHELL WATER DETECTOR

## CHECK YOUR FUEL!

Free water in aviation fuel has led to ice formation, filter blockages and consequent engine failure. It can also allow microbial growth in fuel tanks, which can cause fuel spoiling and filter blocking. Acids generated by the microbes can even cause corrosion damage.

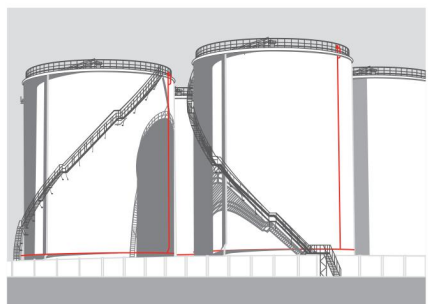
Low concentrations of water suspended in fuel cannot be detected by visual inspections. Thankfully, there is an easy-to-use test that you can rely on to verify that your jet fuel meets demanding aviation standards for water content.

The Shell Water Detector is a long-established and trusted industry-standard test for water in fuel. It is manufactured to Shell's high quality requirements for reliable testing throughout the fuel supply chain.

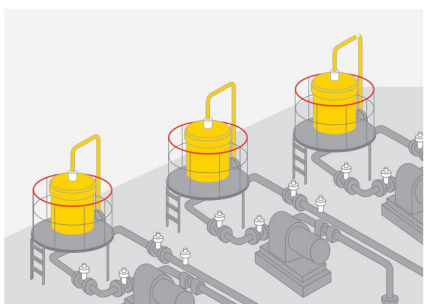


## WHEN TO USE

Water can enter the fuel supply chain in multiple locations. JIG stipulates that you shall test



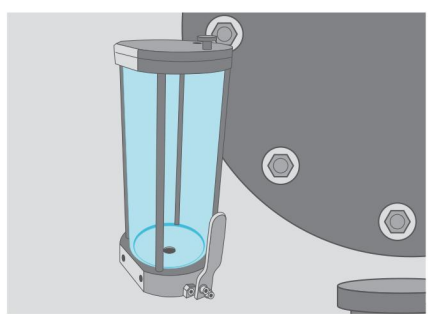
Each **in-service tank** daily



Each **filter drain** (hydrant filter/ loading filter) daily



All **fueller and trailer tanks** daily and as per JIG 1 5.3.1



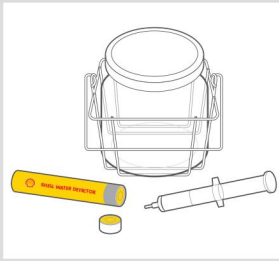
Each **fueller filter drain** daily and as per JIG 1 5.3.1



Each **hydrant dispenser** daily and as per JIG 1 5.3.2

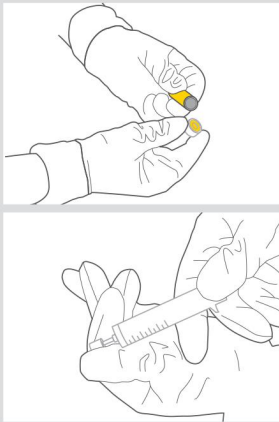
# HOW TO USE

## 1 CHECK THE EQUIPMENT



- Check the **tube expiry date**.
- Ensure that the sample jar is clean and free from water.
- Check that the 5-ml (0.2-fl-oz) syringe operates freely and that the nozzle is undamaged.

## 2 FIT THE CAPSULE



- Remove a capsule from the tube. Do not touch or allow any moisture onto the yellow paper of the capsule.
- Close the tube to protect the remaining capsules from the ambient humidity.
- Check that paper is uniformly yellow. If it is not, use another capsule.
- Fit the capsule to the syringe with the plunger ready for use.

## 3 DRAW A SAMPLE



- Use the sample from the visual "clear and bright" check you have just completed.
- If you do not already have the sample, follow the visual inspection procedures (ASTM D4176).

## 4 IMMERSE THE CAPSULE IN THE SAMPLE



- Ensure you are using gloves that are impervious to fuel.
- Immerse the capsule and about half the syringe in the sample and stir in a circular motion.

## 5 EXTRACT THE SAMPLE



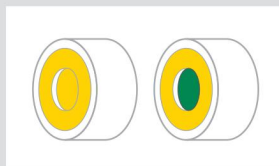
- Draw 5 ml of fuel into the syringe.
- Many operators favour a reverse-action (single-handed) syringe, which draws a sample when the plunger is pushed, rather than a traditional syringe that needs holding in one hand while the other pulls the plunger.

## 6 WITHDRAW THE SYRINGE AND EXAMINE THE CAPSULE



- Withdraw the syringe from the fuel and examine the capsule immediately for any colour change in the centre-wet area.

## 7 RESULTS



- The yellow wet area turns yellow-green in the presence of very low concentrations of dispersed water. The change to green becomes progressively more noticeable with increasing water content.

COLOUR	RESULT
No change	Acceptable
A few green speckles or a slight change in colour	Trace
Distinct colour change	Suspended water

- If there is any colour change, test a new sample to ensure that the first capsule was not faulty. If there is still a colour change with the second and a third test sample, water is present in the fuel.

## 8 AFTER SAMPLING



- Dispose of the used capsule safely. It can only be used once.
- Empty the contents of the syringe back into the sample container and return to the recovery tank.
- Complete the documentation.

## WHERE TO GET THEM

For more information or to order, please contact your local distributor.