

GUIDELINES:

Instructions for use of the FUELSTAT® Result App

Helps with both the interpretation of FUELSTAT® tests and the collection of data in an easy-to-use format. The app provides digital verification of test results without paper, reducing the risk of incorrect interpretation, as well as central storage of data for compliance and possible trend analysis.

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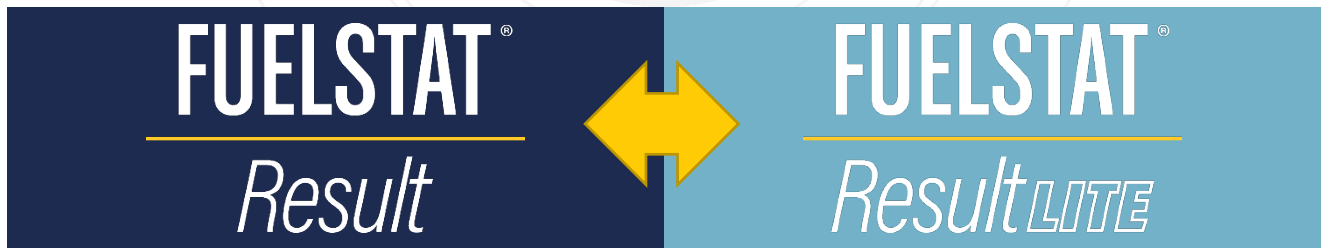
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Background

FUELSTAT® *Result* is a smartphone-based app on iOS and Android that helps with both the interpretation of FUELSTAT® tests and the collection of data in an easy-to-use format. This app can now be used with both FUELSTAT® *Plus* and FUELSTAT® *One* test kits.

Link to Instructional FUELSTAT® test instructions: [click here](#)

FUELSTAT[®] Result v FUELSTAT[®] Result Lite



1. FUELSTAT[®] Result: Organisations can register and provide their users a unique login that gives *FREE access to the portal to analyse all their results from a central database.*
2. FUELSTAT[®] Result Lite: Individual users can use the app for *FREE without prior registration*, just download to your device and start using immediately to verify your test result.
3. All features of the app are available for registered and Lite users.

Download and install the FUELSTAT[®] Result app

The app can be downloaded here:



<https://conidia.com/fuel-testing-kits/fuelstat-result-app/#register>

The FUELSTAT[®] app is designed to work on the following models: iPhone 6 onwards, iPad Pro, Samsung Galaxy 6 onwards.

The app has also been used successfully by most other modern brands and models of smartphones and tablets running on an Android platform, so long as the camera uses a similar API and that they have an LED flash that can be controlled by the app software. If you have any problems with use of your particular device, then please contact info@conidia.com

Using the FUELSTAT® Result app

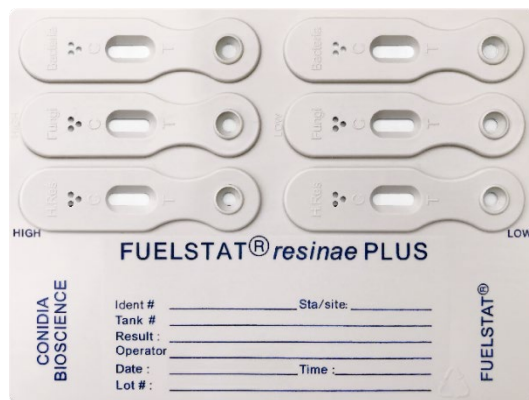


Open the app, if you have a registered login always chose this option.

Select the correct test kit

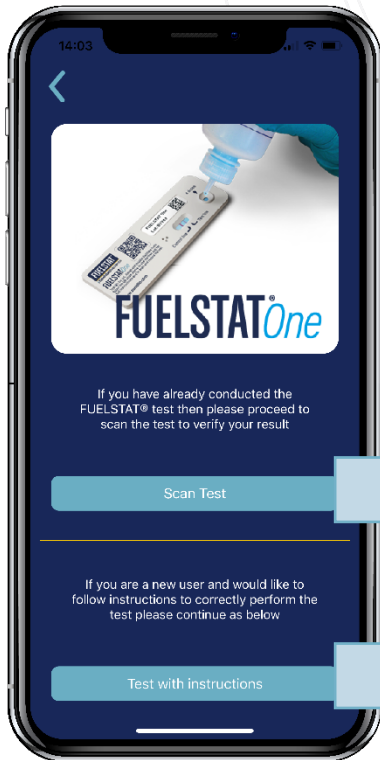


The app can be used all versions of the FUELSTAT® test, ensure that you pick the correct option by selecting the correct image button.



Option to follow test instructions

You have the option to either just scan to verify a completed test, or conduct the test following step-by-step instructions prior to scanning. It is always advisable to follow the test with these step-by-step instructions.

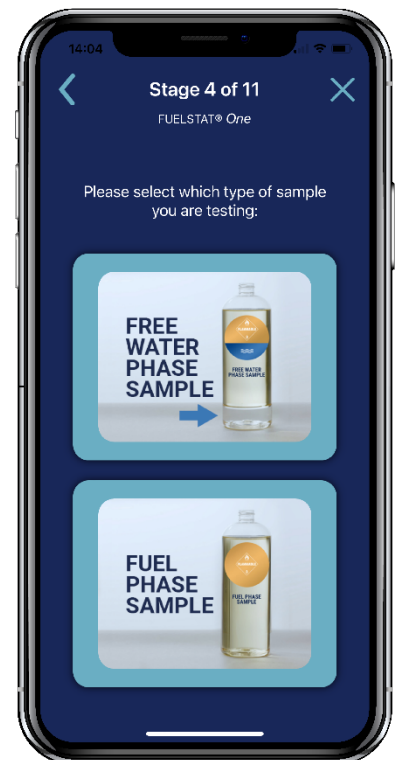
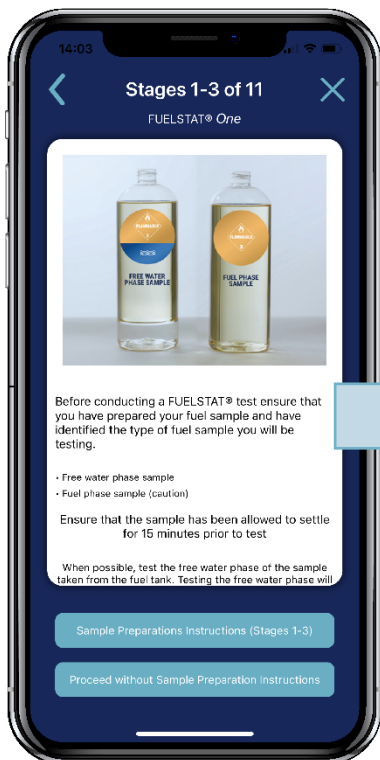


Select **SCAN TEST** to scan a completed test. For first time or occasional users you should always opt to **TEST WITH INSTRUCTIONS** which will take you through the correct procedure for optimal test results. When you proceed with the test instructions then the test procedure is broken down into simple video stages which you can follow and conduct each stage of the test step-by-step for optimal results.

Correct sampling is critical

For your convenience the app includes **SAMPLE PREPARATION INSTRUCTIONS** which provide a guide on how to correctly take fuel samples from fuel tanks and prepare ready for a FUELSTAT test. The collection of free water from the bottom of a tank is always best for the most accurate results.

Once a sample is taken then, if prompted, you must identify whether you are testing for a free water phase sample to ensure correct processes are followed, and that the app correctly calibrates your results.





Timers are provided where required to ensure that the test stages are completed correctly, both during the test process, and afterwards to allow the test to develop, prior to scanning the result.

When the test instructions are completed you will then proceed to the same "scan test" stage as if you had selected to bypass the test instructions.

Scan test

Before scanning the test kit, the FUELSTAT® test must have been completed correctly, with the test left for the prescribed time for lines to appear.

Note: If using FUELSTAT® *Plus* the 6 test wells should be read by eye in accordance with the instructions provided in each test kit and the results recorded prior to scanning the test using the app. The FUELSTAT® *Result* app is used to verify, record, and share these results, but if there is any issue or discrepancy then **the calibrated manual result must always be taken as correct.**

The first step is to identify the test kit production batch.

Scan the Datamatrix code on the foil packaging or on the test cassette. If you have problem scanning the Datamatrix code, simply type in the batch lot number displayed on the label.



Record test data

13:40

Test Data

FUELSTAT[®] One

MANDATORY: Register the fuel type and type of test carried out:

Fuel Type* ▾

Sample Type* ▾

OPTIONAL: Enter details to identify the test being completed, this information is optional, but will appear on your test report ?

Tester Name

Location/Site

Asset Identity

Tank Reference

Continue

It is compulsory to proceed that the correct fuel type and sample type are recorded.

You then have optional information that can be completed.

It is advisable to enter these accurately to ensure that the asset being tested can be clearly identified when the test result is shared, and for future reference.

15-30 minutes after test completion, the app is now ready to scan your test results, hold the phone over the FUELSTAT® cassette. You will see red outlines. Move the test closer or pull back until the outlines turn green and the test is scanned. Once the scan is complete the app shows the results.

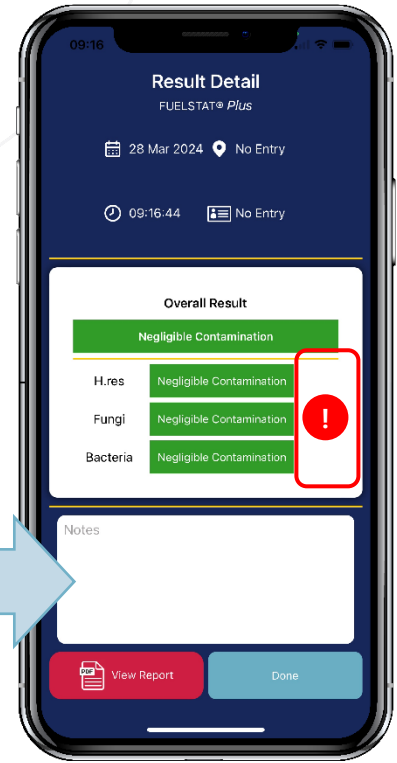


Reading the results – FUELSTAT® Plus

The overall result will be split into the following 3 categories. Verify this agrees with manual reading of the test kit:



If there is an alert symbol adjacent to the test result for any of the contaminants, then this means that the result was close to the threshold for a higher degree of contamination.



You have the option of putting any notes here about the test.

Reading the results – FUELSTAT® One

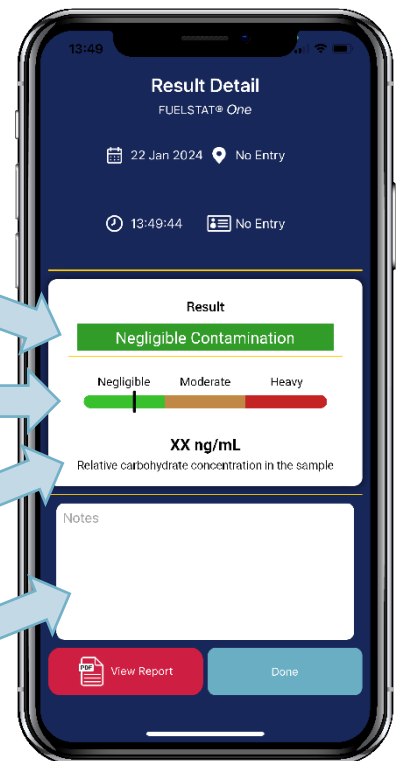
The overall result will be split into the following 3 categories.



The relative level of contamination is indicated by a black line on the coloured scale.

The quantitative value of relative carbohydrate concentration is expressed in ng/mL.

You have the option of putting any notes here about the test.



Troubleshooting when scanning a test

Note: for accurate results ensure that the cassette is scanned within the time window of 15-30 minutes following completion of the test.

Please note that the camera's flash will be turned on automatically when the scanning phase is initialized. It is important not to block the flash while scanning is carried out.

It is best to scan the test in artificial light only, as any natural light, including daylight through windows, may compete with the flash and give an uncertain result.

The flash will be automatically activated by the app. It is easy to know if there are competing light sources. The scan itself may take longer than the usual two to three seconds and may have warning triangles indicating difficulty in reading. If this happens, remember that the test does not have to be scanned immediately.

SCAN IN ARTIFICIAL LIGHT ONLY

NATURAL LIGHT MAY COMPETE WITH FLASH

HOW TO SPOT COMPETING LIGHT SOURCES:

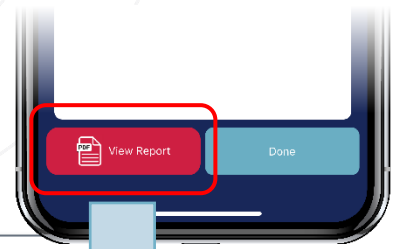
- SCAN MAY TAKE LONGER THAN 2-3 SECONDS
- WARNING TRIANGLES MAY APPEAR

REMEMBER: TEST DOES NOT HAVE TO BE SCANNED IMMEDIATELY TO RETRY, PRESS Read Test

If you wish to retry, simply press **Read Test** from the menu side bar to reset. If for any reason you have a non-functioning smartphone, continue to manually read the test kit. Full printed instructions on completing the test and interpreting the test result are included in every test pack, and in multiple languages from the conidia.com website.

Capture and share information to your Manager

A PDF report can be generated containing the full test result, you have the option to print this or to email to yourself or manager as an instant record of the test result.



FUELSTAT® ANALYSIS REPORT

ConidiaBioscience

This test for microbiological contamination was conducted on a fuel sample using the FUELSTAT® Plus test kit in accordance with ASTM D8070 and the results reported below were read using the FUELSTAT® Result app.

TEST DATA			
Tester name:	John Smith	Test date:	01-JAN-2021
Location/Site:	Location 1	Printout date:	01-JAN-2021
Asset Identity:	Asset 1	Phone make:	OnePlus
Tank Reference:	Tank 1	Phone model #:	ONEPLUS A6013
GPS location:	25°15'14.2"N 55°22'52.5"E	App version:	2.0.2
FUELSTAT Test Lot #:	B2101		

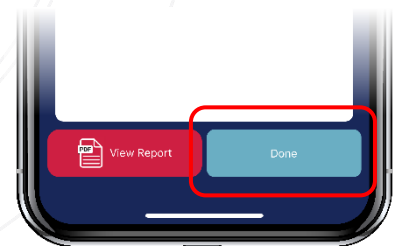
TEST RESULT CONTAMINATION ALERT LEVELS	NOTES
Bacteria: NEGLIGIBLE	A caution on the Negligible alert levels indicates that reading is getting close to the alert level for Moderate Contamination
Fungi: NEGLIGIBLE	
Hormoconis resinae: NEGLIGIBLE (CAUTION)	
OVERALL RESULT: NEGLIGIBLE	

DISCLAIMER	RESULT LIMIT INDUSTRY GUIDELINES																					
FUELSTAT® Result is designed for use with tests which are fully compliant with ASTM D8070. However, readings obtained using FUELSTAT® Result are currently outside the scope of ASTM D8070. Operators should visually validate test results as per ASTM D8070. The accuracy of this report may be dependent on the accuracy of the sample provided. Full terms of use available on the website: www.conidia.com For any technical assistance telephone: +44 (0)1491 829102	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #ffc107;">Phase</th> <th style="background-color: #ffc107;">Target antigen limits</th> <th style="background-color: #ffc107;">Alert level</th> </tr> </thead> <tbody> <tr> <td style="background-color: #d1ecf1;">Fuel</td> <td style="background-color: #d1ecf1;">Up to 150 µg/L</td> <td style="background-color: #28a745; color: white;">NEGLIGIBLE</td> </tr> <tr> <td style="background-color: #d1ecf1;">Water</td> <td style="background-color: #d1ecf1;">Up to 33 µg/ml</td> <td style="background-color: #28a745; color: white;">NEGLIGIBLE</td> </tr> <tr> <td style="background-color: #d1ecf1;">Fuel</td> <td style="background-color: #d1ecf1;">Between 150-750 µg/L</td> <td style="background-color: #ffc107;">MODERATE</td> </tr> <tr> <td style="background-color: #d1ecf1;">Water</td> <td style="background-color: #d1ecf1;">Between 33-166 µg/ml</td> <td style="background-color: #ffc107;">MODERATE</td> </tr> <tr> <td style="background-color: #d1ecf1;">Fuel</td> <td style="background-color: #d1ecf1;">Greater than 750 µg/L</td> <td style="background-color: #dc3545; color: white;">HEAVY</td> </tr> <tr> <td style="background-color: #d1ecf1;">Water</td> <td style="background-color: #d1ecf1;">Greater than 166 µg/ml</td> <td style="background-color: #dc3545; color: white;">HEAVY</td> </tr> </tbody> </table>	Phase	Target antigen limits	Alert level	Fuel	Up to 150 µg/L	NEGLIGIBLE	Water	Up to 33 µg/ml	NEGLIGIBLE	Fuel	Between 150-750 µg/L	MODERATE	Water	Between 33-166 µg/ml	MODERATE	Fuel	Greater than 750 µg/L	HEAVY	Water	Greater than 166 µg/ml	HEAVY
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Water	Between 33-166 µg/ml	MODERATE																				
Fuel	Greater than 750 µg/L	HEAVY																				
Water	Greater than 166 µg/ml	HEAVY																				



Completion of test

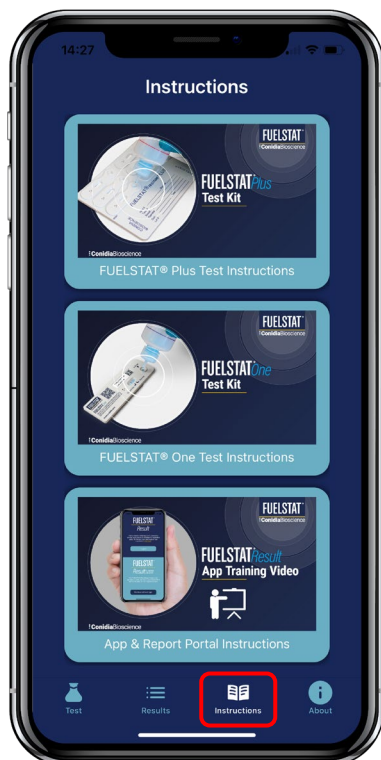
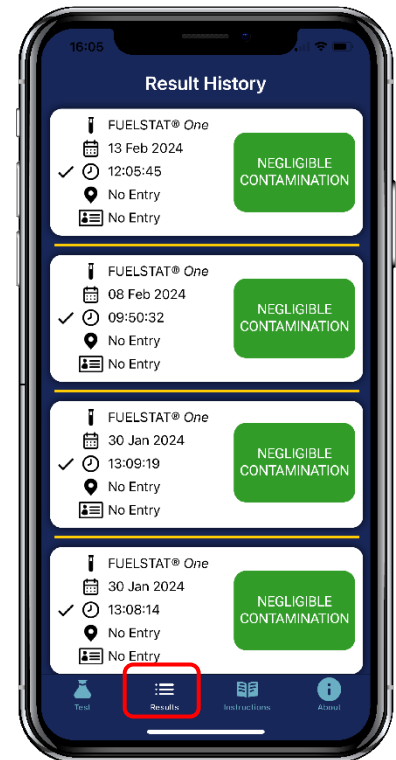
When you have completed the test press the **Done** button and the test will be saved to your device.



If you are a registered user the result will be instantly uploaded to the Portal, if connected to Wi-Fi or mobile data, or will be uploaded the next time the phone is connected.

Test Result History

There are several options available for you in the bottom tabs within the app. The **Results** tab will show your previously recorded test results on the app. From there you can select a previous test result and once again view, email and print the PDF report.



Instructions

Full instruction videos are available to watch within the app at any time so that you can fully understand the procedure before conducting a FUELSTAT® test.

APPENDIX 1: ORGANISATION & USER REGISTRATION

How to sign up to use FUELSTAT[®] Result app and Portal

Register with Conidia Bioscience by emailing info@conidia.com and provide the following information: -

4. Company Name
5. Company Address
6. Full Name of App Administrator (Manager)
7. Email Address of Administrator (Manager)

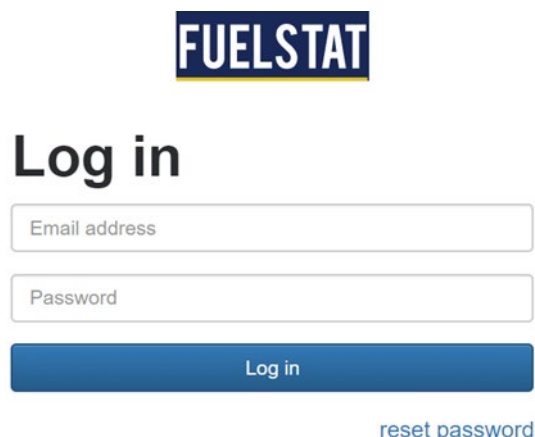
How to add a new user in the FUELSTAT[®] Result web Portal

Step 1: You will receive an email from admin@fuelstat-results.com, this will contain instructions and a password - we recommend that you have enabled admin@fuelstat-results.com as white listed through your IT department, as we are currently unable to resend the email once it has been inputted into the system and will result in that email address being locked out of the system. Your username will be your email address provided.

Paste or type the following link into your Web Browser: -

<https://fuelstat-results.com/auth/login/>

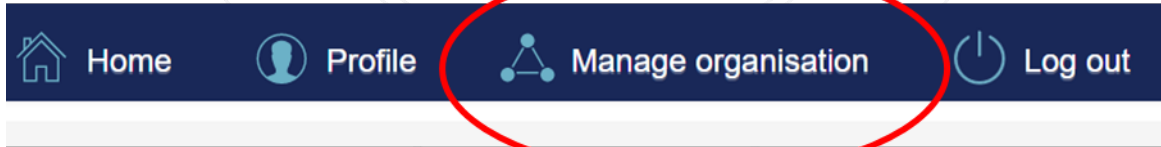
This will open the FUELSTAT[®] Result web page. Log in with your username and password, you may now reset your own memorable password.



The screenshot shows the FUELSTAT login interface. At the top is the FUELSTAT logo. Below it is the heading "Log in". There are two input fields: "Email address" and "Password". Below these fields is a blue "Log in" button. At the bottom right of the form area is a link that says "reset password".

[reset password](#)

Step 2: On the dark blue banner at the top of the screen, click the Manage Organisation tab. This will open your organisation.



Step 3: On the bottom left side of the screen, click the Create Technical User or Engineer: -

- **Technical User** (for use of Phone App and all Organisation results in portal)
- **Engineer** (for use of Phone App and view portal with their tests only)

User	Email	User type
ABC Manager	tfrow+abcmanager@novarumdx.com	Manager
Technical Manager	tfrow+abctechical@novarumdx.com	Technical
Fred Brown	tfrow+fb@novarumdx.com	Engineer
John Smith	tfrow+js@novarumdx.com	Engineer

Previous 1 Next

Step 4: Enter the name and email address of either the **Engineer or Technical User** and click the submit button. The new Engineer will then be sent an automated email, which will take them through the details to set up their password. The new Engineer will now be visible in the Manage Organisation tab.

Create Engineer

Email address:

Name:

Note: Please check your junk/spam folders for this email, as we are currently unable to resend the email once it has been inputted into the system and will result in that email address being lock out of the system.

APPENDIX 2: USING THE PORTAL

How to view results in the FUELSTAT[®] Result web Portal

Step 1: Go to the FUELSTAT[®] Result login in page: <https://fuelstat-results.com/auth/login/> and input the email address and password.

FUELSTAT

Log in

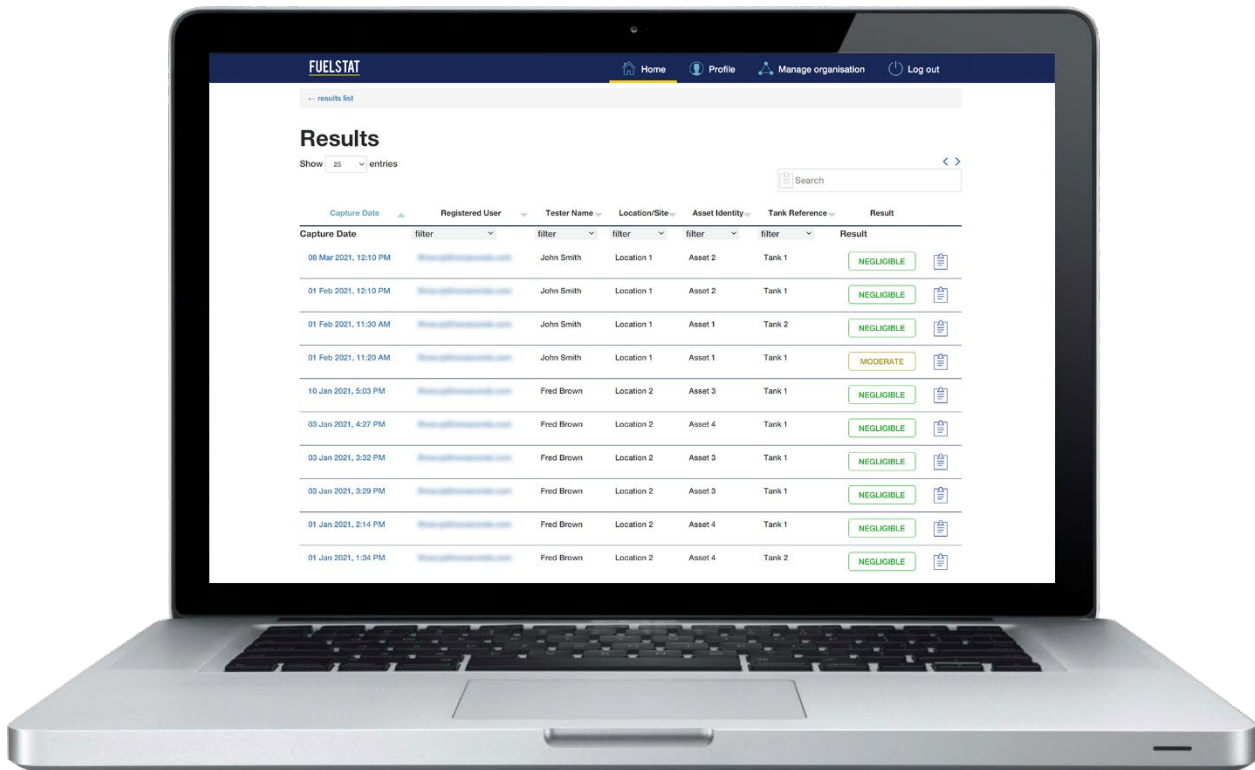
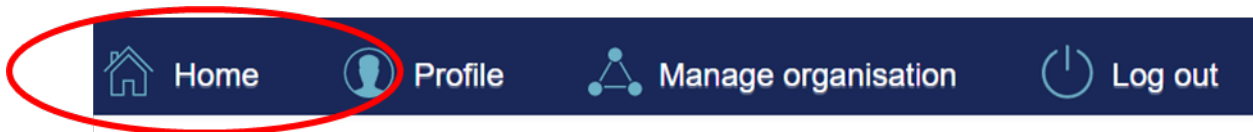
Email address

Password

Log in

[reset password](#)

Step 2: Click the Home tab at the top of the screen to open the list of your test data.



Step 3: View your data. Further information is available by clicking the blue clip board icon on the far right of each data entry.

Capture Date	Registered User	Tester Name	Location/Site	Asset Identity	Tank Reference	Result
08 Mar 2021, 12:10 PM	filter	John Smith	Location 1	Asset 2	Tank 1	NEGLIGIBLE
01 Feb 2021, 12:10 PM	filter	John Smith	Location 1	Asset 2	Tank 1	NEGLIGIBLE
01 Feb 2021, 11:30 AM	filter	John Smith	Location 1	Asset 1	Tank 2	NEGLIGIBLE
01 Feb 2021, 11:20 AM	filter	John Smith	Location 1	Asset 1	Tank 1	MODERATE

Step 4: Each data entry looks like this:

View result

Registered user details

Capture Date: March 8, 2020, 1:05 p.m.
 Device: OnePlus ONEPLUS A6013
 Company Name: ABC Company
 Registered User: John Smith

User entry fields

Tester Name: John Smith
 Location/Site: Location 1
 Asset Identity: Asset 1
 Tank Reference: Tank 1
 FUELSTAT Test Lot #: B2101

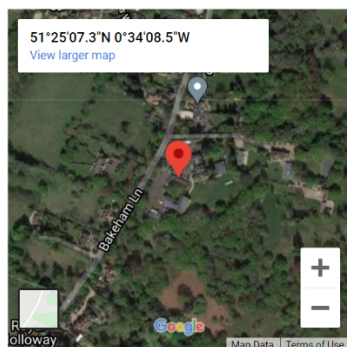
Test results for each contaminant and overall outcome

Comments: Data not supplied
 H.res: NEGLIGIBLE
 Bacteria: NEGLIGIBLE
 Fungi: NEGLIGIBLE
 Overall outcome: NEGLIGIBLE

PDF print, edit and archive tools

EDIT USER ENTRY FIELDS
 ARCHIVE THIS RESULT

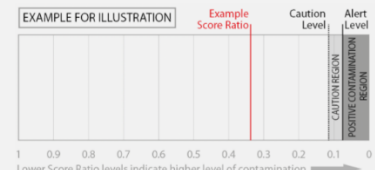
GPS coordinates of where the test was performed



Understanding your results

FUELSTAT® Result produces not only a clear result but also, by optical analysis of line intensity, produces ratios based on the actual score of each test window (there are 6), calculated by dividing the Test Line Score by the Control Line Score. These Actual Score Ratios are useful in understanding how each test window relates to the Alert Levels that are based on industry guidelines for the ranges of Negligible, Moderate and Heavy Contamination. Also, each test window has a new Caution Level that indicates to users that the window in view is getting close to the Alert Level and remedial maintenance action may be worthwhile at this point.

This illustration shows an example of how the Actual Score Ratio relates to both the Caution Level and the Alert Level.



FUELSTAT® Result is intended as a guide only, as true results could be affected by lighting, phone used etc., but could help in making maintenance decisions easier and at correct times.

High Bacteria High Funghi High H.res Low Bacteria Low Funghi Low H.res



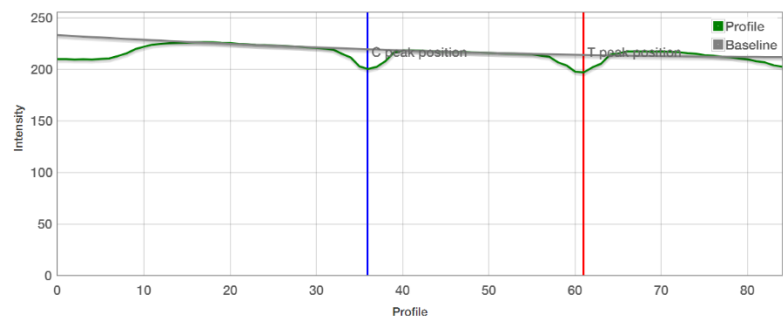
Image captured for the test window showing Control Line on left and Test Line on right

Test Line Score: 16.87 (The intensity of the Test Line on the right)
 Control Line Score: 19.20 (The intensity of the Control Line on the left)
 Actual Score Ratio: 0.879 (A ratio of the Test Line Score / Control Line Score)
 Alert Level: 0.07 (Actual Score Ratio < Alert Level = positive contamination result)
 Caution Level: 0.11 (Actual Score Ratio between Caution and Alert Level = caution)

Detailed information for each contaminant with actual score and alert levels

Data for app developer analysis only

The following graph and data points are used by app developers to assess the test line positions in each test window



Step 5: Print or save PDF Analysis Report:



FUELSTAT® ANALYSIS REPORT

ConidiaBioscience

This test for microbiological contamination was conducted on a fuel sample using the FUELSTAT® Plus test kit in accordance with ASTM D8070 and the results reported below were read using the FUELSTAT® Result app.

REGISTERED USER

Registered User:	John Smith	Address:	Bakeham Lane Egham, Surrey
Company name:	ABC Company	Post code:	TW20 9TY
Customer reference:	101	Country:	United Kingdom

TEST DATA

Tester name:	John Smith	FUELSTAT result #:	18,278
Location/Site:	Location 1	Test date:	01-JAN-2021
Asset Identity:	Asset 1	Printout date:	01-JAN-2021
Tank Reference:	Tank 1	Phone make:	OnePlus
GPS location:	25°15'14.2"N 55°22'52.5"E	Phone model #:	ONEPLUS A6013
FUELSTAT Test Lot #:	B2101	App version:	2.0.2
		Portal version:	3.0.1

TEST RESULT CONTAMINATION ALERT LEVELS

Bacteria:	NEGLIGIBLE	NOTES A caution on the Negligible alert levels indicates that reading is getting close to the alert level for Moderate Contamination
Fungi:	NEGLIGIBLE	
Hormoconis resinae:	NEGLIGIBLE (CAUTION)	
OVERALL RESULT:	NEGLIGIBLE	

DISCLAIMER

FUELSTAT® Result is designed for use with tests which are fully compliant with ASTM D8070. However, readings obtained using FUELSTAT® Result are currently outside the scope of ASTM D8070. Operators should visually validate test results as per ASTM D8070. The accuracy of this report may be dependent on the accuracy of the sample provided.

Full terms of use available on the website: www.conidia.com
For any technical assistance telephone: +44 (0)1491 829102

RESULT LIMIT INDUSTRY GUIDELINES

Phase	Target antigen limits	Alert level
Fuel	Up to 150 µg/L	NEGLIGIBLE
Water	Up to 33 µg/ml	
Fuel	Between 150-750 µg/L	MODERATE
Water	Between 33-166 µg/ml	
Fuel	Greater than 750 µg/L	HEAVY
Water	Greater than 166 µg/ml	

Step 6: Edit user entry fields. This is the data entered by the tester within the app when conducting the test. Should you wish to edit / correct that information then you can do this here:

EDIT USER ENTRY FIELDS

Edit result

Tester Name:	<input type="text" value="Fred Brown"/>
Location/Site:	<input type="text" value="Location 2"/>
Asset Identity:	<input type="text" value="Asset 3"/>
Tank Reference:	<input type="text" value="Tank 1"/>
FUELSTAT Test Lot #:	<input type="text" value="B2101"/>
Comments:	<input type="text" value="Test following clean & biocide, now showing negligible contamination"/>

Submit

Step 7: Archive result. If the test has been duplicated, or is no longer required, you can archive individual results. Any archived results can also be un-archived.

ARCHIVE THIS RESULT

Who we are:

FUELSTAT® fuel tests are developed, manufactured, and marketed by Conidia Bioscience Limited. Based in UK, Conidia Bioscience Limited was founded in early 2000's by experts in immunoassay techniques and holds the internationally patented intellectual property for FUELSTAT®.

FUELSTAT® Result is hosted by Conidia Bioscience Limited and its service partners on secure servers and does not share any data with third parties.

Where to find us:

FUELSTAT® is distributed globally by a network of specialist distributors covering the major sectors. Contact info@conidia.com who will arrange for a distributor to support you.

HEADQUARTERS & GLOBAL SALES OFFICE

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Bioscience**

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