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Fuel Analysis

Report No. 32-2495

For: P3 Generator Services
7 Edge Road
Alpha, NJ 08865

Report to: Same

P.O. 14045

Bill to:

Customer #: xxx9

Lab ID: 22557

Date Received: 12/5/2019

Site ID/Location: SAMPLE CUSTOMER

Tank ID: YD51133

Engine Model: Olympian
150KW

Tank Capacity: Not Given

Gallons in Tank: 345

Sample Port: Not Given

Operating Information

Date Sampled	Fuel Classification	Appearance	Microbe Count	Centrifuge
11/17/2019	A #2 Diesel	B Bright	C < 1000	D Satisfactory
8/2/2018	#2 Diesel	Bright	< 1000	Trace Sediment

E Inorganic Components (ICP)

P	Sn	Cr	Pb	Ni	Ba	B	Si	Mn	Fe	Mo	Mg	Ca	Ti	Cu	Zn	Ag	Al	Na	K
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Physical Properties

Organic Contaminants (FTIR)	Accelerated Aging Stability Index
F Biodiesel Present	G 37-39=+2
Biodiesel Present	33-32=1

Comments and Recommendations:



Treat with ILFC TEN-32 at a rate of 1 gallon per 10,000 gallons of fuel.

All ultra low sulfur users should see the recommendation on the reverse side of this report.

These laboratory results are intended to be helpful and informative. They are based on our best experience, current industry testing procedures, proper sampling procedure and information provided with the sample, which we believe to be reliable. We cannot assume responsibility for any loss or accident that may result from the use of the information given here.

ILFC, INC. FUEL ANALYSIS

EXPLANATION OF CUSTOMER REPORT AND ANALYTICAL DATA

Because ultra low sulfur diesel is different from earlier diesel fuels, it contributes to accelerated fuel system corrosion and increased water entrainment and microbial growth. Field data shows that treating all fuel with ILFC Ten 32 at a rate of 1 gallon per 10,000 gallons of ULSD mitigates these problems.

This report will provide you with analytical data, a cumulative visual history of previous data and interpretation of the data. This explanation should be used as a guide to help explain your report.

Sample and Tank Information is supplied by the customer on the sample bottle then put on the report. This information includes variables that may influence the interpretation of the data.

Note: Some of the information in this section such as lab ID is supplied by the lab.

Analytical Data is supplied by the laboratory on the customer report. This data is used for interpretation.

Cumulative History is shown on the report. Listed in the top row of each section is the information and data for the current sample. The information and data in the second and third rows is from two previous samples. This aids in interpretation.

Comments and Recommendations are supplied by the laboratory. This is the interpretation section of the report.

SAMPLE & TANK INFORMATION

CUSTOMER NUMBER: A unique number assigned to each customer by our lab

REPORT NUMBER: A tracking number assigned by our lab to each batch of reports.

LAB ID: A control number assigned by our lab.

DATE RECEIVED: Date lab received sample.

SITE ID/NAME: Assigned by the customer to individual locations that have tanks.

TANK ID: Assigned by the customer to individual tanks at each location.

TANK CAPACITY: Customer supplied info. on capacity of fuel tank (in gallons).

GALLONS IN TANK: Customer supplied information on actual amount (in gallons) of fuel in the tank at the time the sample was taken.

OTHER INFO: Any other pertinent information supplied by the customer.

DATE SAMPLED: Date customer took sample

ANALYTICAL TESTS

A FUEL CLASSIFICATION: A classification according to ASTM D-975 for the appropriate fuel type.

B APPEARANCE: A general observation of sample appearance (e.g., water haze, obvious contaminants, color of sample). Gives clues as to what may be found analytically. Dark fuels may require additional treatment.

C MICROBE COUNT: Is determined by a contact slide method ASTM D6469. Bacteria, algae, and fungi are expressed in microbe colonies per milliliter. A high count is usually indicative of a problem.

D CENTRIFUGE: A determination of the amount of bottom sediment and/or water present ASTM D2709. Depending on the amount of contamination present and its source the presence of these contaminants can be a serious condition.

E INORGANIC CONTAMINATION (ICP): A measurement of specific metal content in parts per million (PPM) ASTM D7111-M. Significant amounts of metals may indicate the presence of waste oil in the fuel or the presence of rust in the tank.

F ORGANIC CONTAMINATION (FTIR): An identification of organic contaminants such as gasoline, waste solvents, and residual fuels.

G ACCELERATED AGING (REPOLYMERIZATION): Since it is the nature of fuel to repolymerize (to form larger hydrocarbon molecules) it is necessary to project how fast this is going to happen and to what degree it has already happened. To do this our patented accelerated aging technique is used (ILFC PATENT #4,556,326). The results of this test are expressed in numbers that describe the amount of polymer, gum, etc., that will be generated in the fuel in the next year of storage and the amount already present. The recommended dosage of our patented inhibitor is tied directly to these numbers as well as to the microbe count. We refer to these numbers as the stability index.

Stability Index:

A positive stability number indicates the presence of suspended water in the fuel. Treatment at 1 gallon per 10,000 gallons of fuel is recommended.

A 3 or less stability index will most likely remain stable for one year. ILFC Ten32 inhibitor may be recommended in this case if there is a high microbe count, sediment buildup or emulsified water is present. Even stable fuel can benefit from a preventative maintenance dose of additive.

A stability index in the range of 4 to 10 will get a recommendation for a single dose of inhibitor (1 gallon per 10,000 gallons of fuel).*

A stability index in the range of 11 to 17 will get a recommendation for a double dose of inhibitor (1 gallon per 5,000 gallons of fuel).*

As the stability index climbs in increments of 7 the dosage rate increases proportionately. Therefore an index of 25 to 31 will indicate a quadruple dose of inhibitor. (1 gallon per 2,500 gallons). Very high stability index may call for treatment, resampling, and possibly re-treatment.*

* Other variables may be present that may call for additional inhibitor.

* Different treatment rates may be required with different ILFC products.