

FUEL REPORT

Sample Rating Trend

ISO

Machine le **GOOGLE-LNR-B-2-G** Component

Diesel Fuel Fluid DIESEL FUEL No. 2 (--- GAL)

DIAGNOSIS

A Recommendation

We advise that you filter this fluid before use. All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

There is a high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample.

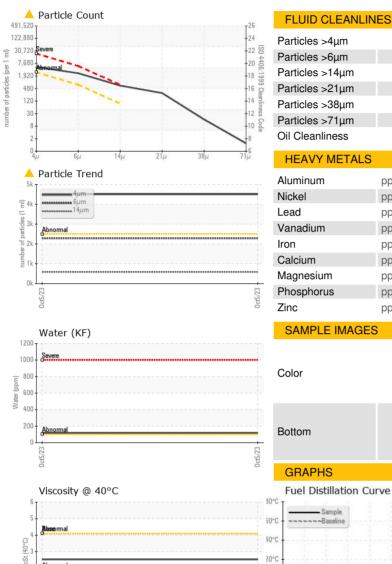
Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info 05 Oct 2023 Sample Date Client Info 05 Oct 2023 Sample Status Imit/base Current history1 PHYSICAL PROPERTIES method limit/base current history1 history2 Specific Gravity 'ASTM D1298 0.845 Syscific Gravity 'ASTM D1298 0.845 Syscific Gravity 'ASTM D100 L4.5 Syscific Gravity 'ASTM D1505 0 Syscifiur ppm ASTM D5458 0 Sulfur ppm ASTM D5458 0 DISTILLATION method limit/base current history1 history2					0ct2023		
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Sample Status Image: Status ATTENTION PHYSICAL PROPERTIES method limit/base current history1 history2 Specific Gravity 'ASTM D1203 0.845 Specific Gravity 'ASTM D1500 L4.5 ASTM Color scalar 'ASTM D1500 L4.5 Visc @ 40°C cSt ASTM D1500 L4.5 Sulfur CONTENT method limit/base current history1 history2 Sulfur (UVF) ppm ASTM D565 0 DISTILLATION method limit/base current history1 history2 Initial Boiling Point °C ASTM D86 196 10% Distillation Point °C ASTM D86 211 10% Distill Point °C ASTM D86 232 10% Distill Point °C<	Sample Date		Client Info		05 Oct 2023		
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API Gravity ASTM D7777 36.0 Cetane Index ASTM D4737 <40.0 46.5 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0 0 Sodium ppm ASTM D5185m <0.1 0 Potassium ppm ASTM D5185m <0.1 <1 Water % ASTM D6304 <0.05 0.011 % Gasoline % *In-House <0.50 0.0	Distillation Loss	%	ASTM D86		0.8		
Cetane Index ASTM D4737 <40.0 46.5 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m <1.0 0 Sodium ppm ASTM D5185m <0.1 0 Potassium ppm ASTM D6304 <0.05 0.011 Water % ASTM D6304 <500 113.8 % Gasoline % *In-House <0.50 0.0	IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
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ppm Water ppm ASTM D6304 <500 113.8 % Gasoline % *In-House <0.50 0.0	Potassium	ppm	ASTM D5185m	<0.1	<1		
% Gasoline % *In-House <0.50 0.0	Water	%	ASTM D6304	< 0.05	0.011		
	ppm Water	ppm	ASTM D6304	<500	113.8		
% Biodiesel % *In-House <20.0 0.0	% Gasoline	%	*In-House	<0.50	0.0		
	% Biodiesel	%	*In-House	<20.0	0.0		



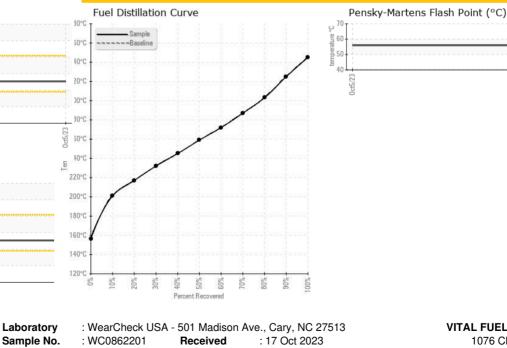
FUEL REPORT



FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	4504		
Particles >6µm		ASTM D7647	>640	<u> </u>		
Particles >14µm		ASTM D7647	>80	<u> </u>		
Particles >21µm		ASTM D7647	>20	<u> </u>		
Particles >38µm		ASTM D7647	>4	<u> </u>		
Particles >71µm		ASTM D7647	>3	1		
Oil Cleanliness		ISO 4406 (c)	>18/16/13	 19/18/16		
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	2		
Nickel	ppm	ASTM D5185m	<0.1	0		
Lead	ppm	ASTM D5185m	<0.1	0		
Vanadium	ppm	ASTM D5185m	<0.1	0		
Iron	ppm	ASTM D5185m	<0.1	0		
Calcium	ppm	ASTM D5185m	<0.1	<1		
Magnesium	ppm	ASTM D5185m	<0.1	<1		
Phosphorus	ppm	ASTM D5185m	<0.1	0		
Zinc	ppm	ASTM D5185m	<0.1	0		
SAMPLE IMAGES	;	method	limit/base	current	history1	history2







Diagnosed

: 25 Oct 2023

Diagnostician : Doug Bogart

VITAL FUEL SYSTEMS 1076 CLASSIC RD APEX, NC US 27539 Contact: JOHN MORREALE jmorreale@vitalfuelsystems.com T: (919)629-8180 12) F: (919)303-7399



Abnorma

Abnorma

Viscosity @ 40°C

0ct5/23

cSt (40°C)

 Certificate L2367
 Test Package
 : DF-2 (Additional Tests: Screen)

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 jm

 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: 05981560

Report Id: VITAPE [WUSCAR] 05981560 (Generated: 10/29/2023 18:25:05) Rev: 2

Lab Number

Unique Number : 10698855

Contact/Location: JOHN MORREALE - VITAPE

0ct5/23.