

FUEL REPORT

Sample Rating Trend



Machine Id **ZDC AST 3 12 IN** Component **Diesel Fuel** Fluid **DIESEL FUEL No. 2 (--- GAL)**

DIAGNOSIS

Recommendation

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

Gasoline content negligible. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

Fuel Condition

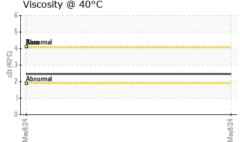
Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

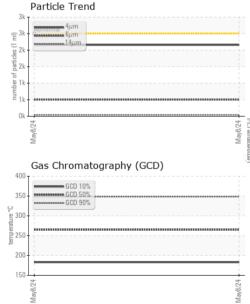
				May2024		
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0929973		
Sample Date		Client Info		08 May 2024		
Machine Age	hrs	Client Info		0		
Sample Status				NORMAL		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen		Red		
ASTM Color	scalar	*ASTM D1500		L4.5		
Visc @ 40°C	cSt	ASTM D445	4.1	2.46		
Pensky-Martens Flash Point	°C	*PMCC Calculated		60.8		
SULFUR CONTE	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		0		
Sulfur (UVF)		ASTM D5185		12		
, , , , , , , , , , , , , , , , , , ,	ppm			12		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		172		
5% Distillation Point	°C	ASTM D86		195		
10% Distill Point	°C	ASTM D86		205		
15% Distillation Point	°C	ASTM D86		213		
20% Distill Point	°C	ASTM D86		221		
30% Distill Point	°C	ASTM D86		235		
40% Distill Point	°C	ASTM D86		249		
50% Distill Point	°C	ASTM D86		262		
60% Distill Point	°C	ASTM D86		276		
70% Distill Point	°C	ASTM D86		290		
80% Distill Point	°C	ASTM D86		306		
85% Distillation Point	°C	ASTM D86		316		
90% Distill Point	°C	ASTM D86		327		
95% Distillation Point	°C	ASTM D86		344		
Final Boiling Point	°C	ASTM D86		357		
IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777		36		
Cetane Index		ASTM D4737	<40.0	49		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0		
Sodium	ppm	ASTM D5185m	<0.1	<1		
Potassium	ppm	ASTM D5185m	<0.1	0		
Water	%	ASTM D6304	<0.05	0.003		
ppm Water	ppm	ASTM D6304	<500	26		
% Gasoline	%	*In-House	<0.50	2.2		
% Biodiesel	%	*In-House	<20.0	0.0		



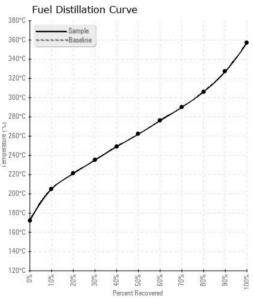
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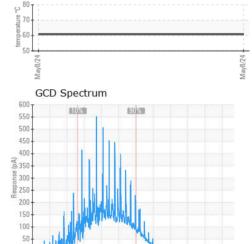
Par	ticle Cou	int			
491,520					T ²⁶
122,880					-24
30,720 Severe					-22 8
7,680 Abnor	mal				20 ह
1,920					-18 2
480 -					-16 g
120-					14
30,720 Severe 7,680 Abnor 1,920 480 120 - 30 - 8			-		-22 0 70 -20 70 -18 22 -16 0 -14 1110 -12 25 -10 000
8-					-10 g
					2.0
2-					-8
0. 4µ	^{6μ} ter (KF)	14μ	21µ	38µ	
0 4µ 1200 1000 800 € 800 400 200	ter (KF)	14μ	21µ	38µ	6
04μ Wa 1200 1000 - 8ev 800 6000 400 200 Abn	ter (KF)	14μ	21µ	38 ^µ	71µ
04 4µ 1200 1000 800 (md() half 800 200 200 400 200 400 200 400	ter (KF)	14μ	21µ	384	6





FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	2158		
Particles >6µm		ASTM D7647	>640	504		
Particles >14µm		ASTM D7647	>80	43		
Particles >21µm		ASTM D7647	>20	14		
Particles >38µm		ASTM D7647	>4	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>18/16/13	18/16/13		
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0		
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	0		
Magnesium	ppm	ASTM D5185m	<0.1	0		
Phosphorus	ppm	ASTM D5185m	<0.1	0		
Zinc	ppm	ASTM D5185m	<0.1	0		
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						





Time (min)

Pensky-Martens Flash Point (°C)



VITAL FUEL SYSTEMS Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0929973 Sample No. Received : 09 May 2024 1076 CLASSIC RD Lab Number : 06174985 Tested : 14 May 2024 APEX, NC Unique Number : 11021038 Diagnosed : 14 May 2024 - Doug Bogart US 27539 Test Package : DF-2 (Additional Tests: Fuel, Screen) Contact: SERVICE Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. service@vitalfuelsystems.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)629-8180 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)303-7399

Report Id: VITAPE [WUSCAR] 06174985 (Generated: 05/14/2024 17:24:07) Rev: 1

Contact/Location: SERVICE ? - VITAPE

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