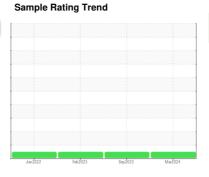


FUEL REPORT

Tri State [Tri State] Diesel - #2 Starboard

Starboard Diesel Fuel

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)





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

There is no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible. There is no indication of any contamination in the fuel.

Fuel Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0600300	WC0805491	WC0600264
Sample Date		Client Info		29 Mar 2024	26 Sep 2023	22 Feb 2023
Machine Age	hrs	Client Info		0	0	0
Sample Status				NORMAL	NORMAL	NORMAL
PHYSICAL PROP	PERTIES	method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		L4.0		L5.5
Visc @ 40°C	cSt	ASTM D445	3.0	2.57	2.63	2.72
SULFUR CONTE	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0	4	0
Sulfur (UVF)	ppm	ASTM D5453		14		13
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	<1	<1
Sodium	ppm	ASTM D5185m	<0.1	<1	<1	<1
Potassium	ppm	ASTM D5185m	<0.1	0	0	<1
Water	%	ASTM D6304	< 0.05	0.001	0.003	0.003
ppm Water	ppm	ASTM D6304	< 500	15	28.2	25.3
% Gasoline	%	*In-House	< 0.50	0.0		0.0
% Biodiesel	%	*In-House	<20.0	0.0		0.0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	452		273
Particles >6µm		ASTM D7647	>640	100		66
Particles >14μm		ASTM D7647	>80	15		5
Particles >21µm				7		1
Particles >38µm		ASTM D7647	>4	1		0
Particles >71µm		ASTM D7647	>3	0		0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	16/14/11		15/13/10
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0	<1	<1
Nickel	ppm	ASTM D5185m		0	0	0
Lead	ppm	ASTM D5185m	<0.1	0	0	0
Vanadium	ppm	ASTM D5185m	<0.1	0	0	<1
Iron	ppm	ASTM D5185m	<0.1	0	0	0
Calcium	ppm	ASTM D5185m		0	2	0
Magnesium	ppm	ASTM D5185m	<0.1	1	2	4 7
Phosphorus Zinc	ppm	ASTM D5185m	<0.1	0	0	-
ZITIC	ppm	MCQ1CU IN1CH	<u. i<="" th=""><th>U</th><th>U</th><th>0</th></u.>	U	U	0

SAMPLE IMAGES

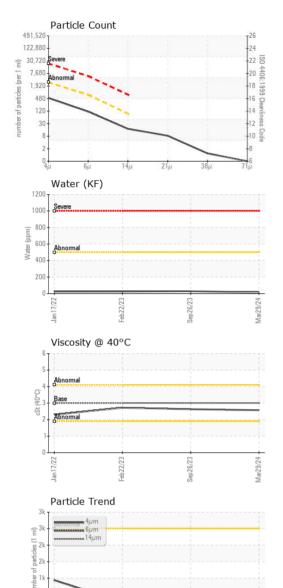
Color

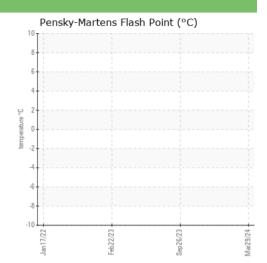
Bottom





FUEL REPORT







Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06140411

Unique Number : 10965219 Test Package : DF-5 (Additional Tests: Screen)

: WC0600300

Received : 05 Apr 2024 **Tested** Diagnosed

: 15 Apr 2024 : 15 Apr 2024 - Doug Bogart MARATHON PETROLEUM CO. 101 12TH ST CATLETTSBURG, KY US 41169

Contact: CORY GUMBERT To discuss this sample report, contact Customer Service at 1-800-237-1369. cagumbert@marathonpetroleum.com T: (606)585-3950

* - 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)

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