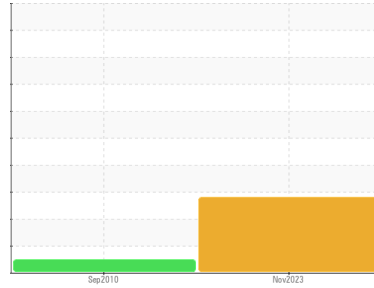


FUEL REPORT

Sample Rating Trend



OFF SPEC



Machine Id
LIFEBOAT #2

Component
Diesel Fuel
Fluid

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

DIAGNOSIS

Recommendation

We advise that you filter this fluid before use. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Corrosion

{not applicable}

Contaminants

There is a light amount of silt (particulates < 14 microns in size) present in the fuel. The water content is negligible.

Fuel Condition

50% Distill Point results are abnormally high. 90% Distill Point results are abnormally high. Final Boiling Point results are abnormally high. Laboratory tests indicate that this sample does NOT meet specifications for No.2 high-sulfur diesel fuel.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC	PC	---
Sample Date	Client Info	26 Nov 2023	15 Sep 2010	---
Machine Age	days	0	0	---
Sample Status		ABNORMAL	NORMAL	---

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2
Specific Gravity	ASTM D1298*	0.839	0.863	---
Fuel Color	text	Visual Screen*	Yellow	Green
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	3.1
Pensky-Martens Flash Point	°C	ASTM D7215*	52	66.6

SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	500	535

DISTILLATION

method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	178
5% Distillation Point	°C	ASTM D2887*		193
10% Distill Point	°C	ASTM D2887*	201	203
15% Distillation Point	°C	ASTM D2887*		213
20% Distill Point	°C	ASTM D2887*	216	223
30% Distill Point	°C	ASTM D2887*	230	244
40% Distill Point	°C	ASTM D2887*	243	264
50% Distill Point	°C	ASTM D2887*	255	284
60% Distill Point	°C	ASTM D2887*	267	302
70% Distill Point	°C	ASTM D2887*	280	319
80% Distill Point	°C	ASTM D2887*	295	337
85% Distillation Point	°C	ASTM D2887*		348
90% Distill Point	°C	ASTM D2887*	310	359
95% Distillation Point	°C	ASTM D2887*		377
Final Boiling Point	°C	ASTM D2887*	341	392

IGNITION QUALITY

method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	32	---
Cetane Index	ASTM D4737*	<40.0	44	---

CONTAMINANTS

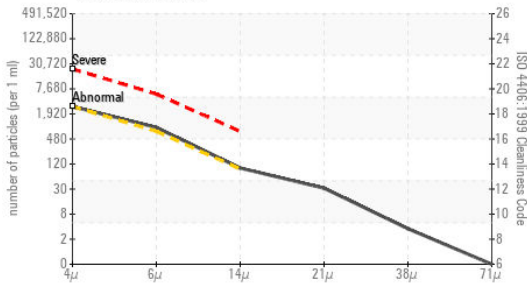
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	0
Sodium	ppm	ASTM D5185(m)	<0.1	<1
Potassium	ppm	ASTM D5185(m)	<0.1	0
Water	%	ASTM D6304*	<0.05	0.003
ppm Water	ppm	ASTM D6304*	<500	38

FLUID CLEANLINESS

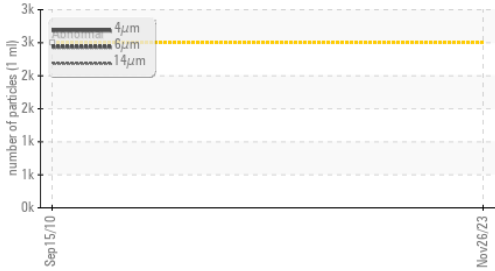
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	2531	---
Particles >6µm	ASTM D7647	>640	796	---
Particles >14µm	ASTM D7647	>80	85	---
Particles >21µm	ASTM D7647	>20	28	---
Particles >38µm	ASTM D7647	>4	3	---
Particles >71µm	ASTM D7647	>3	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	19/17/14	---

FUEL REPORT

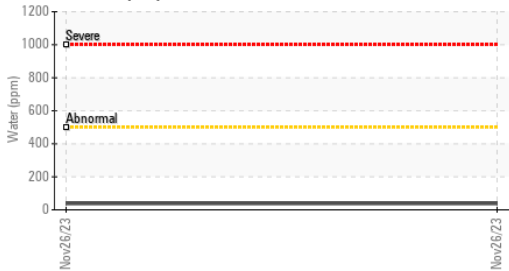
Particle Count



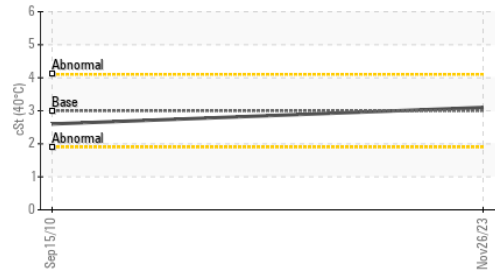
Particle Trend



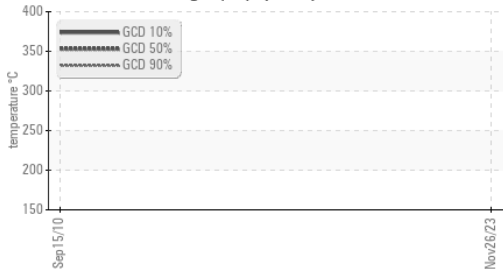
Water (KF)



Viscosity @ 40°C



Gas Chromatography (GCD)



HEAVY METALS

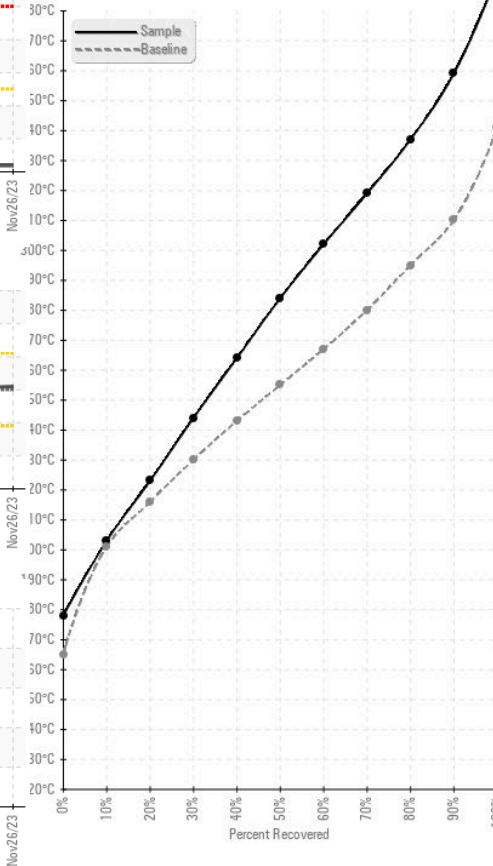
	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	0	<1
Nickel	ppm	ASTM D5185(m)	<0.1	0	0
Lead	ppm	ASTM D5185(m)	<0.1	0	0
Vanadium	ppm	ASTM D5185(m)	<0.1	0	0
Iron	ppm	ASTM D5185(m)	<0.1	<1	<1
Calcium	ppm	ASTM D5185(m)	<0.1	0	0
Magnesium	ppm	ASTM D5185(m)	<0.1	0	0
Phosphorus	ppm	ASTM D5185(m)	<0.1	<1	<1
Zinc	ppm	ASTM D5185(m)	<0.1	0	0

SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS

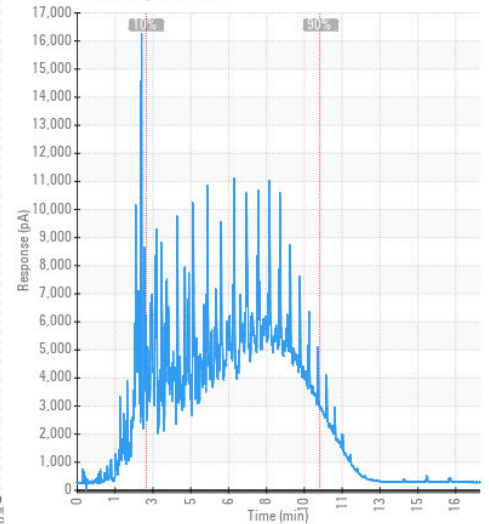
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02599150
Unique Number : 5684230
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PRTCOUNT)

Received : 27 Nov 2023
Diagnosed : 20 Dec 2023
Diagnostician : Kevin Marson

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshhynes@suncor.com
 T: (709)778-3575
 F: (709)724-2835

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.