



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
STARBOARD ENGINE
 Component
Starboard Diesel Engine
 Fluid
SHELL 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0948710	---	---
Sample Date		Client Info		23 May 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	90	---	---
Chromium	ppm	ASTM D5185(m)	>15	1	---	---
Nickel	ppm	ASTM D5185(m)	>4	3	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	1	---	---
Lead	ppm	ASTM D5185(m)	>50	<1	---	---
Copper	ppm	ASTM D5185(m)	>170	25	---	---
Tin	ppm	ASTM D5185(m)	>4	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

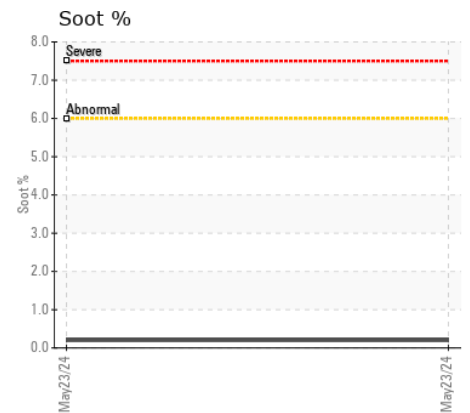
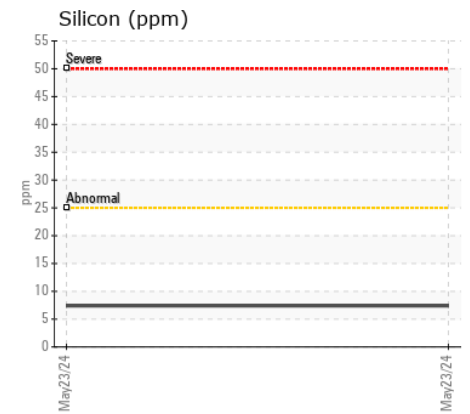
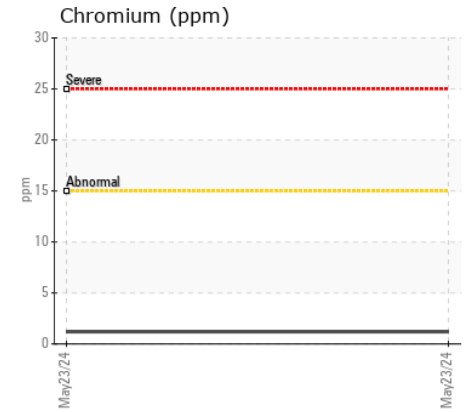
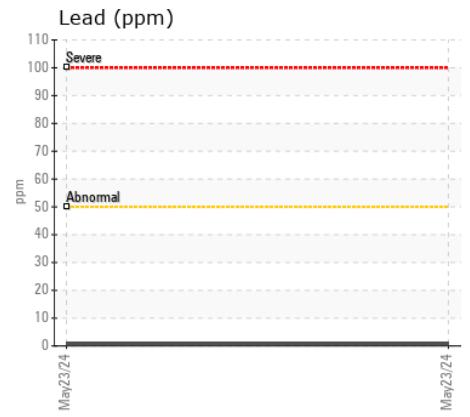
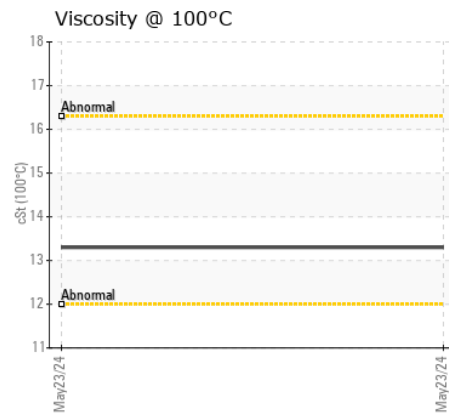
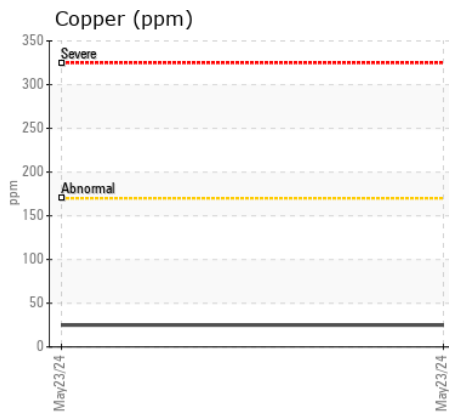
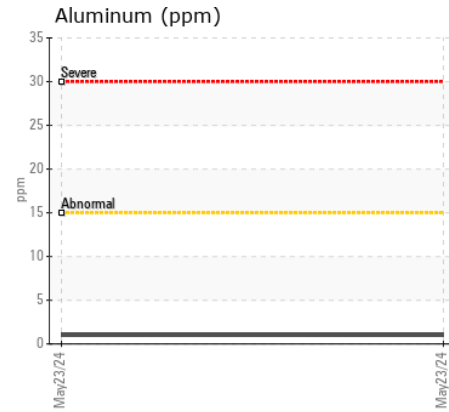
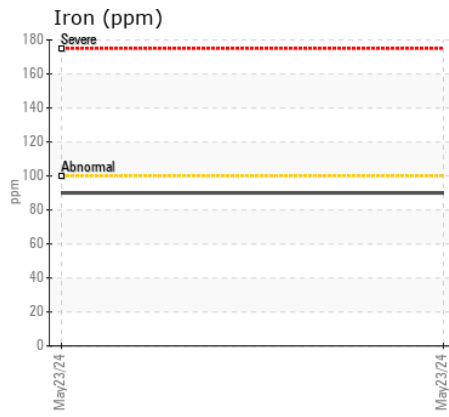
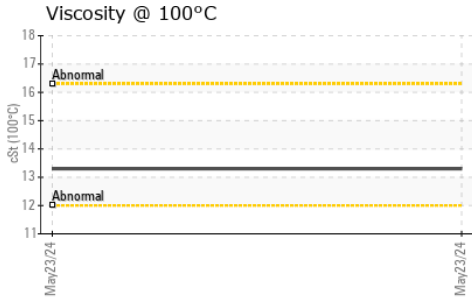
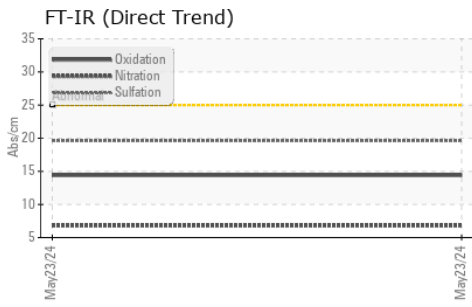
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	7	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>6	0.2	---	---
Nitration	Abs/cm	ASTM D7624*	>20	6.8	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>150	3	---	---
Boron	ppm	ASTM D5185(m)		12	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		65	---	---
Manganese	ppm	ASTM D5185(m)		2	---	---
Magnesium	ppm	ASTM D5185(m)		896	---	---
Calcium	ppm	ASTM D5185(m)		1134	---	---
Phosphorus	ppm	ASTM D5185(m)		1017	---	---
Zinc	ppm	ASTM D5185(m)		1176	---	---
Sulfur	ppm	ASTM D5185(m)		2576	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.4	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		13.3	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0948710 **Received** : 29 May 2024
Lab Number : 02638371 **Tested** : 29 May 2024
Unique Number : 5787533 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : MOB 1

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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.