

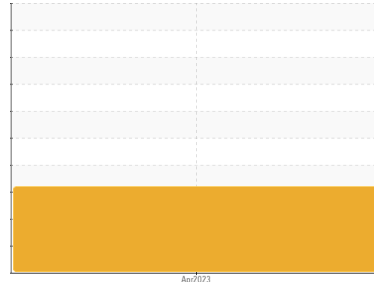


PROBLEM SUMMARY

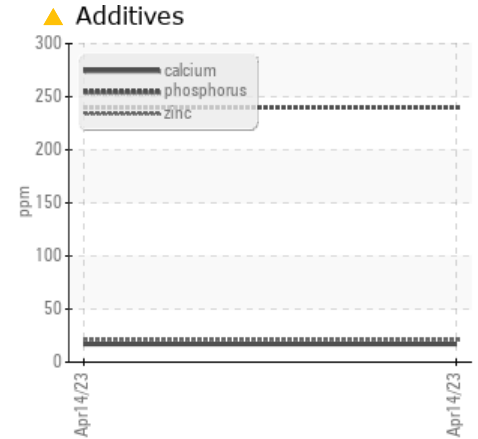
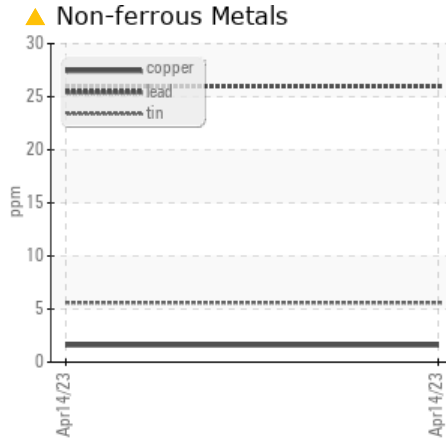
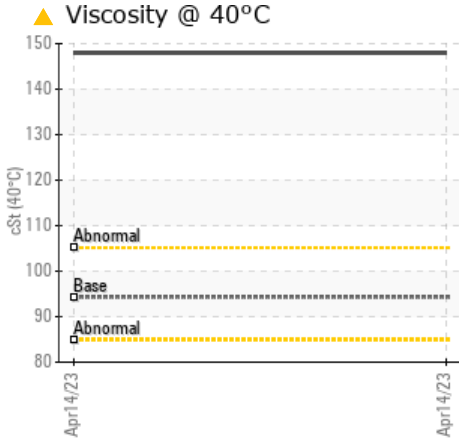
Sample Rating Trend

WEAR

Area
Propulsion Shaft Bearings
 Machine Id
Propulsion Shaft Bearings Starboard
 Component
Front Right Bearing
 Fluid
PETRO CANADA TURBOFLO R&O 100 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TURBOFLO R&O 100, however, a fluid match indicates that this fluid is ISO 150 Synthetic (PAO) Gear Oil. Please confirm the oil type and grade on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Lead	ppm	ASTM D5185(m)	>25	▲ 26	---	---
Boron	ppm	ASTM D5185(m)		▲ 35	---	---
Calcium	ppm	ASTM D5185(m)	0	▲ 17	---	---
Phosphorus	ppm	ASTM D5185(m)	4	▲ 240	---	---
Zinc	ppm	ASTM D5185(m)	0	▲ 21	---	---
Sulfur	ppm	ASTM D5185(m)		▲ 3643	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	94.3	▲ 148	---	---

Customer Id: VMASSEY
 Sample No.: WC0810871
 Lab Number: 02552958
 Test Package: MAR 1



To manage this report scan the QR code

To discuss the diagnosis or test data:
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 Gloria Gonzalez +1 (289)291-4643 x4643
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RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Alert	MISSED	Aug 16 2023	?	The fluid was specified as PETRO CANADA TURBOFLO R&O 100, however, a fluid match indicates that this fluid is ISO 150 Synthetic (PAO) Gear Oil. Please confirm the oil type and grade on your next sample.
Information Required	MISSED	Aug 16 2023	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Fluid Source	MISSED	Aug 16 2023	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

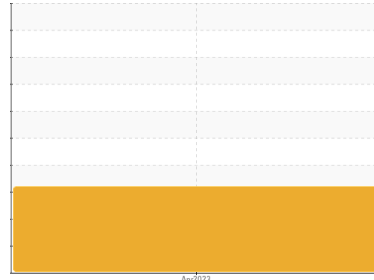
Sample Rating Trend

WEAR



Area
Machine Id
Component
Fluid

Propulsion Shaft Bearings
Propulsion Shaft Bearings Starboard
Front Right Bearing
PETRO CANADA TURBOFLO R&O 100 (--- GAL)



DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TURBOFLO R&O 100, however, a fluid match indicates that this fluid is ISO 150 Synthetic (PAO) Gear Oil. Please confirm the oil type and grade on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Lead ppm levels are noted. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 150 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0810871	---	---
Sample Date	Client Info	14 Apr 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>20	3	---	---
Chromium ppm ASTM D5185(m)	>2	0	---	---
Nickel ppm ASTM D5185(m)	>2	<1	---	---
Titanium ppm ASTM D5185(m)		0	---	---
Silver ppm ASTM D5185(m)		0	---	---
Aluminum ppm ASTM D5185(m)	>5	<1	---	---
Lead ppm ASTM D5185(m)	>25	▲ 26	---	---
Copper ppm ASTM D5185(m)	>5	2	---	---
Tin ppm ASTM D5185(m)	>15	6	---	---
Antimony ppm ASTM D5185(m)		5	---	---
Vanadium ppm ASTM D5185(m)		0	---	---
Beryllium ppm ASTM D5185(m)		0	---	---
Cadmium ppm ASTM D5185(m)		<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185(m)		▲ 35	---	---
Barium ppm ASTM D5185(m)		0	---	---
Molybdenum ppm ASTM D5185(m)		0	---	---
Manganese ppm ASTM D5185(m)		<1	---	---
Magnesium ppm ASTM D5185(m)		1	---	---
Calcium ppm ASTM D5185(m)	0	▲ 17	---	---
Phosphorus ppm ASTM D5185(m)	4	▲ 240	---	---
Zinc ppm ASTM D5185(m)	0	▲ 21	---	---
Sulfur ppm ASTM D5185(m)		▲ 3643	---	---
Lithium ppm ASTM D5185(m)		<1	---	---

CONTAMINANTS

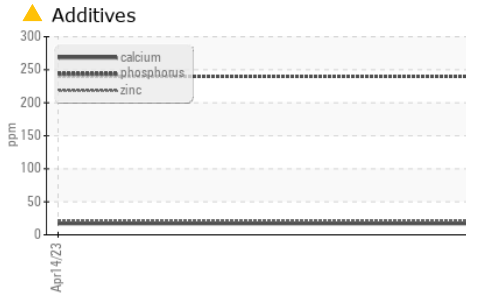
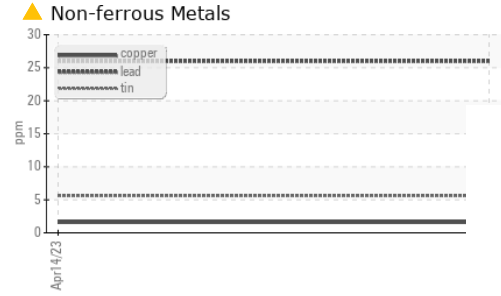
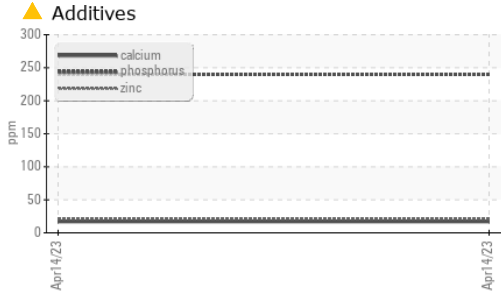
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>15	6	---	---
Sodium ppm ASTM D5185(m)		2	---	---
Potassium ppm ASTM D5185(m)	>20	<1	---	---

VISUAL

method	limit/base	current	history1	history2
White Metal scalar Visual*	NONE	VLITE	---	---
Yellow Metal scalar Visual*	NONE	NONE	---	---
Precipitate scalar Visual*	NONE	NONE	---	---
Silt scalar Visual*	NONE	NONE	---	---
Debris scalar Visual*	NONE	VLITE	---	---
Sand/Dirt scalar Visual*	NONE	NONE	---	---
Appearance scalar Visual*	NORML	NORML	---	---
Odor scalar Visual*	NORML	NORML	---	---
Emulsified Water scalar Visual*	>0.1	NEG	---	---
Free Water scalar Visual*		NEG	---	---



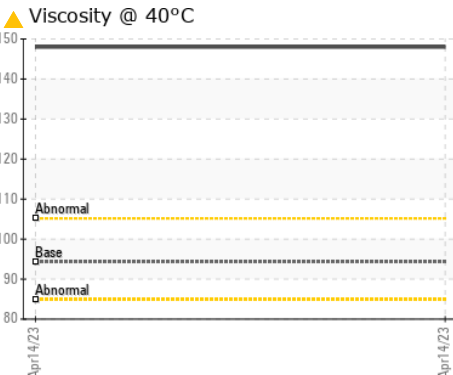
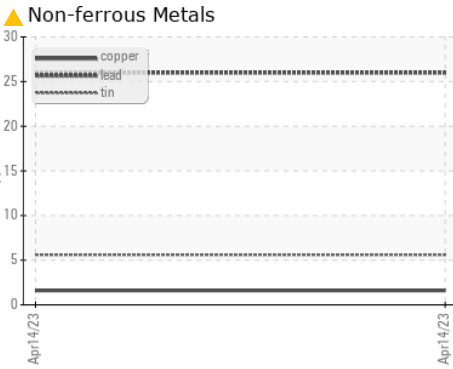
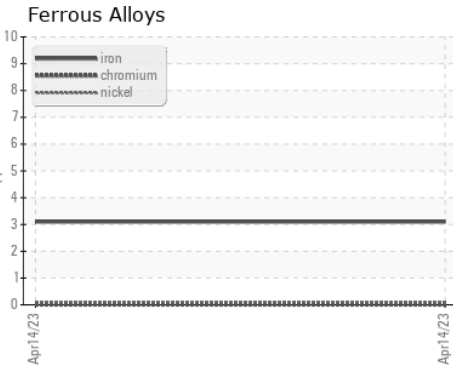
OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	94.3 ▲ 148	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0810871 **Received** : 21 Apr 2023
Lab Number : 02552958 **Diagnosed** : 21 Apr 2023
Unique Number : 5565973 **Diagnostician** : Kevin Marson
Test Package : MAR 1

Canadian Coast Guard
 CCGS Vincent Massey, 101 Boul. Champlain
 Quebec, QC
 CA G1K 7Y7
 Contact: Vincent Massey
 vincentmasseyse@ccgs-ngcc.gc.ca
 T:
 F:

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.