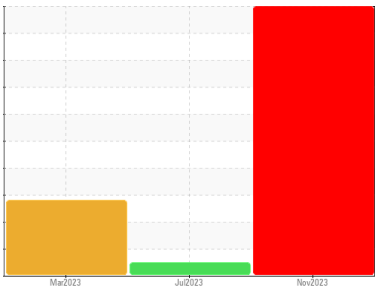
PROBLEM SUMMARY

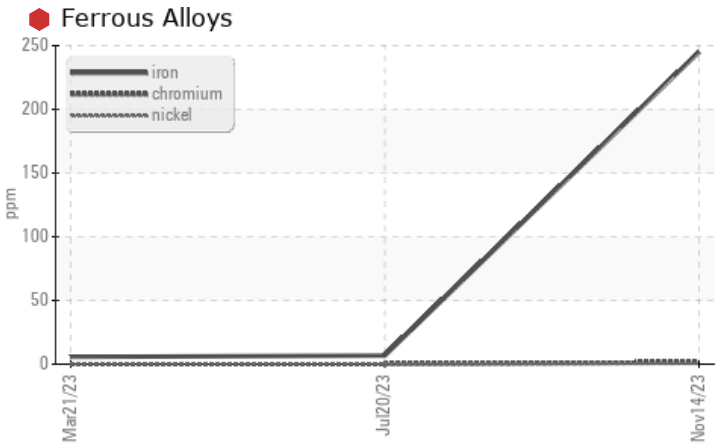
Sample Rating Trend

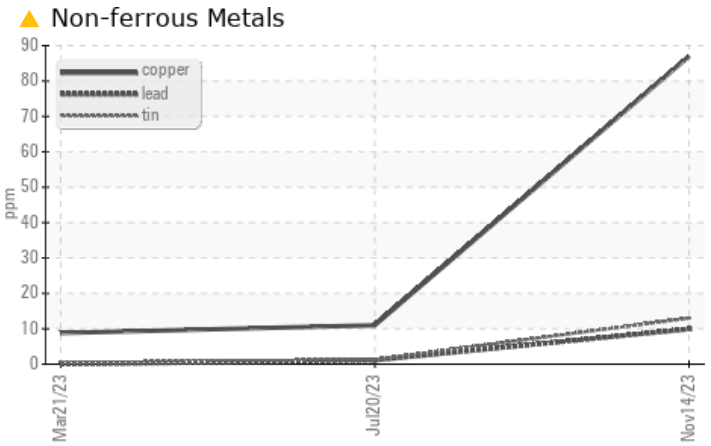


VISUAL METAL

Machine Id
LIM_MLU4 LIM_MLU4
Component
Inboard Pump
Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>90	**245**	7	6
Lead	ppm	ASTM D5185m	>12	**10**	1	0
Copper	ppm	ASTM D5185m	>30	**87**	11	9
Tin	ppm	ASTM D5185m	>9	**13**	1	<1
White Metal	scalar	*Visual	NONE	**HEAVY**	NONE	NONE

Customer Id: ENELIM
Sample No.: RP0032525
Lab Number: 06026551
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

20 Jul 2023 Diag: Jonathan Hester

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

21 Mar 2023 Diag: Angela Borella

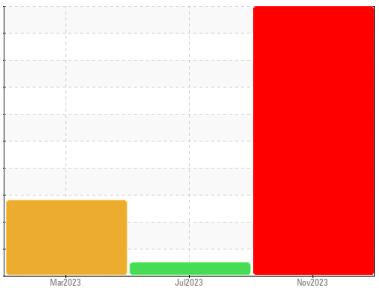
WATER

We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Appearance is hazy. Moderate concentration of visible dirt/debris present in the oil. Free water present. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
LIM_MLU4 LIM_MLU4
Component
Inboard Pump
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
The iron level is severe. High concentration of visible metal present. Bearing and/or bushing wear is indicated.

Contamination
The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0032525**	RP0033078	RP0032838
Sample Date		Client Info		**14 Nov 2023**	20 Jul 2023	21 Mar 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**245**	7	6
Chromium	ppm	ASTM D5185m	>5	**2**	0	0
Nickel	ppm	ASTM D5185m	>5	**<1**	0	0
Titanium	ppm	ASTM D5185m	>3	**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>7	**2**	0	<1
Lead	ppm	ASTM D5185m	>12	**10**	1	0
Copper	ppm	ASTM D5185m	>30	**87**	11	9
Tin	ppm	ASTM D5185m	>9	**13**	1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**2**	<1	<1
Magnesium	ppm	ASTM D5185m		**39**	81	21
Calcium	ppm	ASTM D5185m		**0**	1	0
Phosphorus	ppm	ASTM D5185m		**0**	12	49
Zinc	ppm	ASTM D5185m		**0**	9	0

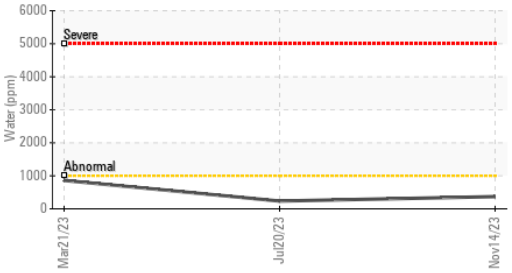
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**5**	0	2
Sodium	ppm	ASTM D5185m		**1**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	1	0
Water	%	ASTM D6304	>.1	**0.036**	0.023	0.086
ppm Water	ppm	ASTM D6304	>1000	**370**	235.1	860

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.28**	0.34	0.23

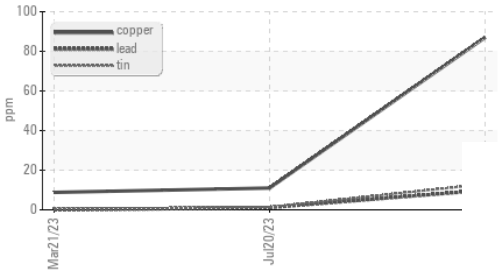
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**HEAVY**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	MODER
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	**NEG**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	1.0

OIL ANALYSIS REPORT

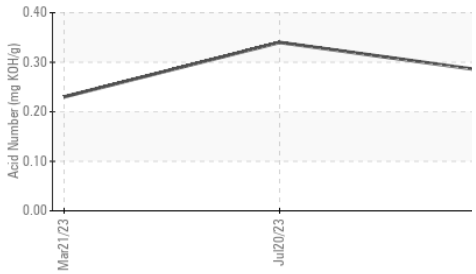
Water (KF)



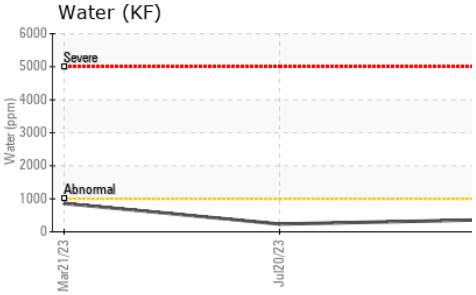
Non-ferrous Metals



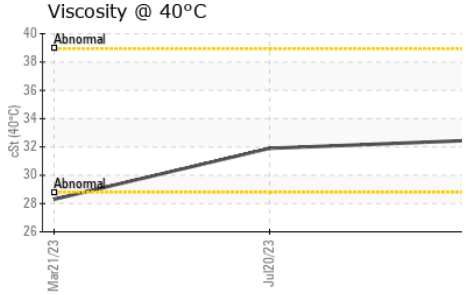
Acid Number



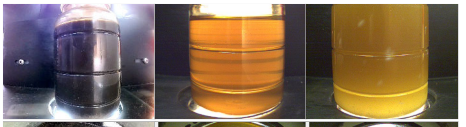
Water (KF)



Viscosity @ 40°C

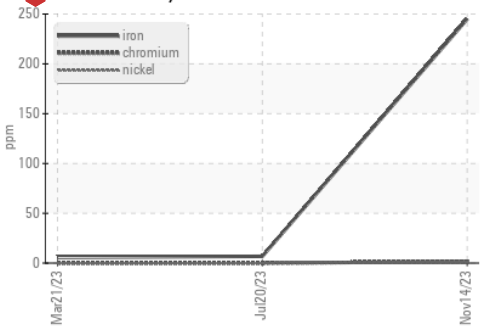


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**32.5**	31.9	28.3

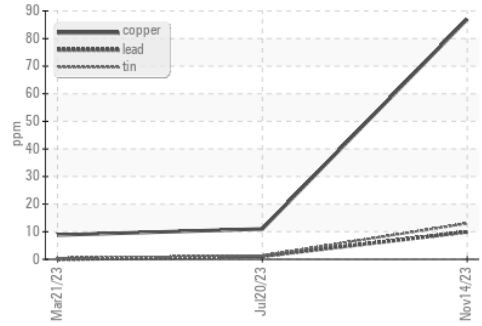
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

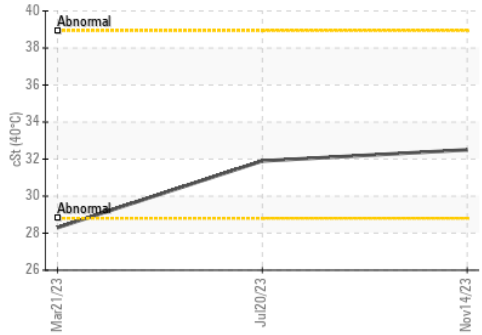
Ferrous Alloys



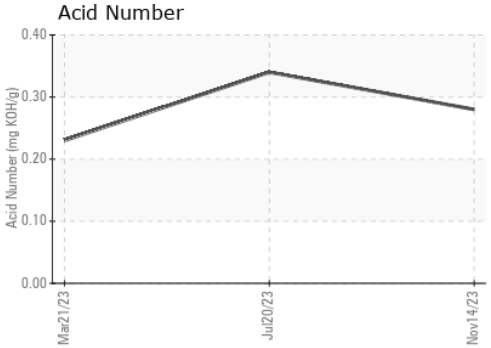
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0032525
Lab Number : 06026551
Unique Number : 10776342
Test Package : IND 2

Received : 06 Dec 2023
Diagnosed : 08 Dec 2023
Diagnostician : Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - 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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